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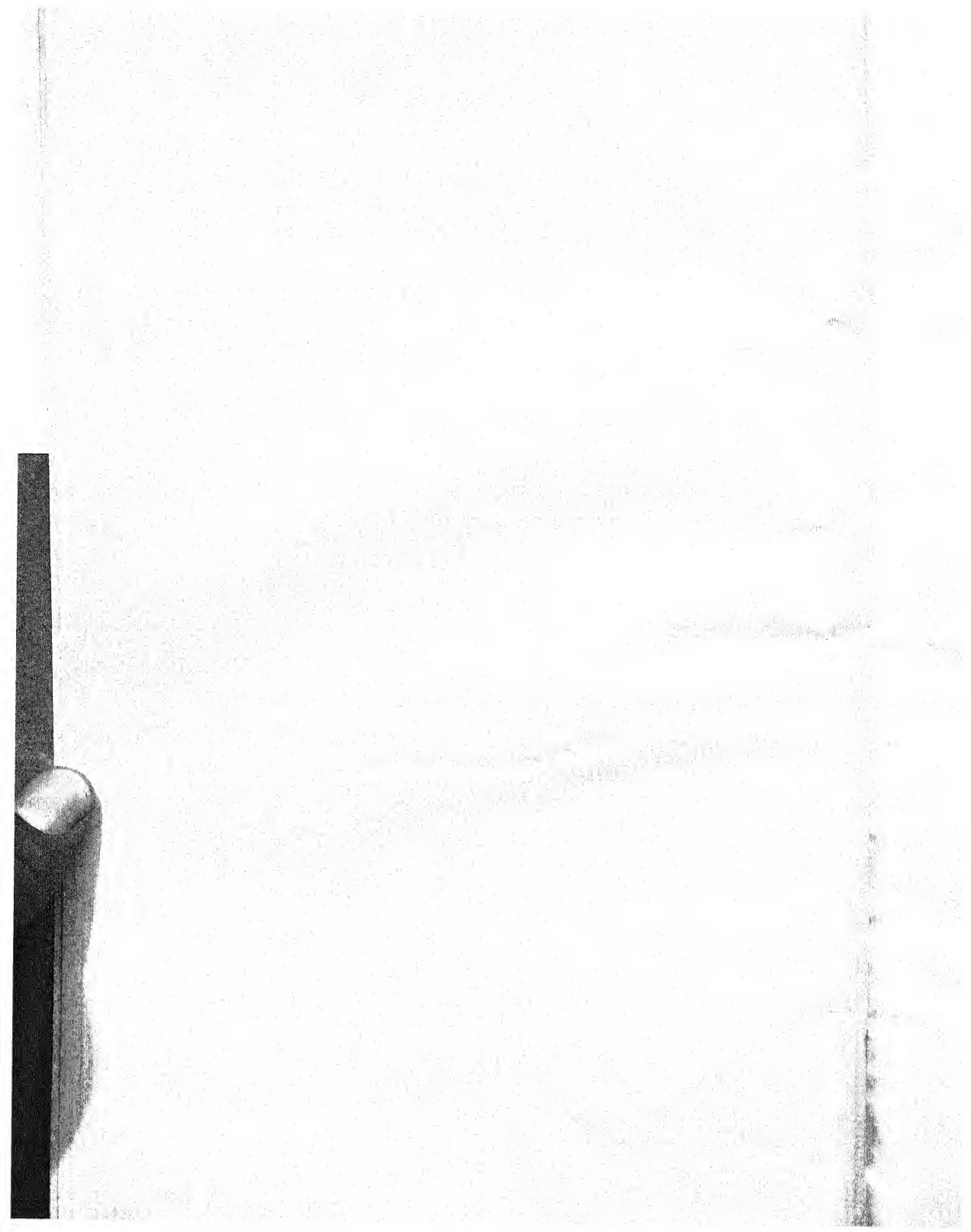
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INDIC MANUSCRIPTS AT THE
ANNENBERG RESEARCH INSTITUTE

STEPHEN HILLYER LEVITT

The Annenberg Research Institute in Merion, Pennsylvania, until recently known as the Dropsie College and located in Philadelphia, has in its Library's manuscript collection four Indic manuscripts.

The first three of these come from the collection of illustrated manuscripts which belonged to John Frederick Lewis (1860-1932), most of which collection went to the Free Library of Philadelphia. See Muhammad Ahmed Simsar, *Oriental Manuscripts of the John Frederick Lewis Collection in the Free Library of Philadelphia* . . . (Philadelphia, 1937) for those of John Frederick Lewis' Indic manuscripts which went to the Free Library. Still other of John Frederick Lewis' Indic manuscripts seem to have gone to Horace Poleman, and from Poleman to the University of Pennsylvania's Indic manuscript collection and to the personal manuscript collection of W. Norman Brown.

The texts in these first three Annenberg Research Institute manuscripts were listed in Horace Poleman's *Census of Indic Manuscripts in the United States and Canada*, American Oriental Series 14 (New Haven, 1938), but as is the case with such brief listings, the texts are inadequately described and, on this account, errors were made. Some of these errors have already crept into the *New Catalogus Catalogorum*.

These three Annenberg Indic manuscripts come from the Punjab Hills. Two (MSS. 223 and 224) are hymnals of which each contains a large number of texts. One of these (MS. 224) is illustrated with two miniature paintings. These two manuscripts were examined by the writer in person. The other (MS. 222) is a hymnal of two texts only, also illustrated with two miniature paintings. This latter manuscript, however, is at present out of place or missing. A color photograph of one of its illustrations and facing text, though, is in file, and a recataloguing was done on the basis of this and the listings in Horace Poleman's *Census of Indic Manuscripts in the United States and Canada*.

These three manuscripts prove to be very interesting.

In one (MS. 223), some of the hymns appear to be copies of texts for which there are only few other copies on record. Other hymns are the only copies reported to date of the texts in question. We may have autographs in this manuscript. The outlook of the

manuscript is primarily Śaiva and Tantric. Emphasized is devotion to Śiva, Devī, Gaṇeśa, and in forms compatible with Tantric belief, Viṣṇu. It cannot be determined from which state in the Punjab Hills the manuscript comes. While the manuscript probably comes from the late 18th or 19th c., its date is uncertain.

The other two manuscripts are interesting on account of their miniature paintings. One (MS. 222), the manuscript presently out of place or missing, on the basis of the color photograph in file comes from Basohli, and is from the period when Basohli's style was starting to show the influence of painting in Guler. It contains complete two wellknown Vaiṣṇava texts, the *Bhagavadgītā* and the *Viṣṇusahasranāman*, reflecting the ardent Vaiṣṇavism which had gained a foothold in Basohli. The manuscript dates from c. 1760-65. The other (MS. 224), is from the beginning of the period of Guler influence in Mandi, and may contain the only paintings reported to date in the style of the painter Sañjnu which are in a Mandi popular style. It also provides an example of how the *Bhagavadgītā* is illustrated in a tradition which is predominantly Śaiva. The choice and ordering of the texts here suggest the conventional adherence to Viṣṇu subordinated to the more popular Śaivism of Mandi. Contained are well-known Vaiṣṇava texts 'in essence', including the *Ekaślokirāmāyaṇa* not wellknown in manuscript copy elsewhere, followed by two full Vaiṣṇava texts, with meditations culminating in four full *stotras* to Devī. The manuscript perhaps dates from c. 1808-10.

The fourth Annenberg Research Institute Indic manuscript (MS. 85. 333) is a Telegu palm leaf manuscript which was discovered in the Institute's Library during its recent move from Philadelphia. It is not listed in Horace Poleman's *Census of Indic Manuscripts in the United States and Canada*. Though in poor condition, and perhaps incomplete, it is interesting in that the writer has not been able to trace its title in the sources of Telegu literature available to him.

A full description of the manuscripts, correcting Horace Poleman's earlier listing and when necessary the *New Catalogus Catalogorum* follows.

I would like to take this opportunity to thank Dr. David Goldenberg, Associate Director of the Annenberg Research Institute, for his assistance in facilitating the full cataloguing of these manuscripts.

MS. 222. ILLUSTRATED COLLECTION OF 2 HINDU RELIGIOUS TEXTS. Sanskrit. Devanāgarī script. 6 3/4" × 4.1". 210 ff. : ff. 1¹ - 2¹, 1² - 170, 4² - 42². 5 lines per folio. Kashmirian paper, waxed (?). The script is Devanāgarī as written in the *Śāradā* script area (Kashmir and Punjab Hills). The text is boxed

on each folio side by orange rules. The entire manuscript is bound in cloth-covered cardboard covers.

The manuscript is illustrated by 2 full-page miniature paintings, one on f. 92 v. (r. blank) before the beginning of chapter 10 of the famous *Bhagavadgītā*, and one after f. 170 at the end of this text. On the basis of a photograph of the first of these paintings, the style is that of Basohli (Punjab Hills), c. 1760-65, and is comparable to that in the paintings of the '5th' *Bhāgavatapurāṇa* series from Basohli. These illustrations are from the beginning of the period of Guler influence in Basohli's painting. The illustration of Viṣṇu reclining during the periodic dissolution of the universe which appears before chapter 10 of the *Bhagavadgītā* here, framed in a modernly garish fashion by an angular geometric and floral pattern background, is particularly comparable to the illustration of the Earth appealing to a reclining Viṣṇu in the *Bhāgavatapurāṇa* series. Compare, for instance, the treatment of the heads of the serpent Śeṣa on which Viṣṇu is reclining, and the treatment of the lotus attached to Viṣṇu's navel. Palette : more akin to that of Guler than earlier Basohli painting, red, pale red, orange, green, blue, pale blue, yellow, gold, black.

Both texts in this collection are very popular Vaiṣṇava texts. Such a selection of texts is in accord with the ardent Vaiṣṇavism which had gained a foothold in Basohli earlier, and which continued its influence, though perhaps abated, down to the time of this manuscript and later. The illustration of Viṣṇu reclining which appears before chapter 10 of the *Bhagavadgītā* here is of a transparently universal form of Viṣṇu, and is commonly used as an illustration to accompany the second text which appears in this small collection.

(1) *Bhagavadgītā*. Epic : *Mahābhārata*, Special Texts. 172 ff., f. 1¹ - f. 2¹, f. 1² - f. 170. Ends in verse 78 of the last chapter, *adhyāya* 18. Poleman no. 935. 2 illustrations (see above).

(2) [*Viṣṇusahasranāman*] *Viṣṇor nāmasahasra*. Epic : *Mahābhārata*, *Sāntiparvan*. 38 ff., f. 4² - f. 42². Lacks beginning. Poleman no. 899.

The manuscript is at present out of place. The above information is based on Horace Poleman's listing in his *Census of Indic Manuscripts in the United States and Canada*, and on a photograph of the first illustration and facing text.

MS. 223: COLLECTION OF 18 HINDU RELIGIOUS TEXTS. Sanskrit. *Devānāgarī* script. 14.7 cm × 9.5 cm./5 3/4" × 3 3/4". 101 ff. : ff. 1¹ - 65, 1² - 36². Folio 1² bound upside down at end of volume. 1. ff. 1¹ - 65, texts (1) and (2) : 4 lines per folio (ff. 1¹ v. and 2¹ r., 3 lines per folio). 2. ff. 1² - 33² r., texts (3) - (17) : 6 lines per folio. 3. ff. 33² v. - 36² v., text (18) : 9 lines per folio. Kashmirian.

paper. The foliation of ff. 13¹ - 65, text (2), has been altered. The original foliation cannot be made out. The script of each of the three sections of texts is in a different hand. That of the first two hands is markedly *Devanāgarī* as written in the *Śāradā* script area (Kashmir and Punjab Hills). The entire manuscript contains a small number of marginal glosses and corrections. In writing the manuscript, space had been left for the use of red ink for punctuation and for parts of colophons, the names of speakers and some phrases. The red ink was not written in after f. 27², text (14), though, and was omitted in places before this as well. On this account, the identification of some texts in the collection is troublesome. Throughout the manuscript, a yellow wash has been used over many lines. The text of ff. 1¹ - 65, section 1, is boxed in with a simple geometric pattern in red, black and yellow. The pattern of ff. 1¹ v. and 2¹ r. is more ornate, uses green as well, and contains floral motifs of continuous stems with leaves and flowers. The manuscript is bound in a cloth-covered hemp cover. The cloth has a red and blue on white geometric design containing in Arabic script a passage which is perhaps from the Koran. But there is not enough text on the cover to say for sure whether this is so, or even in truth whether the text is in Arabic, Persian, or Urdu. A printed note on the front cover, probably from the time of purchase, notes, "An Ancient Sanskrit MS. Prayers and Invocations, 1 vol. oblong, *Indian print binding*. From Kandy Temple, Ceylon." The attribution to Kandy Temple is incorrect, though common to many manuscripts acquired in the U.S. in the late 19th/early 20th c.

The selection of texts in the manuscript show the person for whom the manuscript was commissioned to have been a devotee of Viṣṇu, Śiva, Gaṇeśa, and Devī. His religious affinities were primarily Śaiva and Tantric. The Vaiṣṇava texts in the collection appear to focus on aspects of Vaiṣṇavism compatible with Tantrism, such as Kṛṣṇa's sport with the cowmaidens (*gopīs*) and conception of Viṣṇu as the supreme spirit, the foremost man. The Tantric affinities of this manuscript may explain the usage of cloth with as Islamic passage on the cover, which would have been used for its value as a charm. Most of the texts here are examples of *stotra* literature (religious praise). This literature appears in context in our epic and *purāṇa* literatures, and in our sectarian Tantric, Śaiva and Vaiṣṇava literatures as well as independent of such contexts. The categories of literature listed for each text are those of Horace Poleman's *Census of Indic Manuscripts in the United States and Canada*, except when further identification has warranted change. We have in this manuscript texts which do not appear to be well-represented elsewhere in manuscript copy, such as texts (4) and/or (16), and text (10), and

texts which do not appear to be represented at all in manuscript copy elsewhere, texts (3), (5), (13), and (15). See especially the discussions under texts (4) and (13) with regard to this.

(a) Brief auspicious note about the completion of the book.
f. 1^{1r}.

(1) *Snānavidhi* (precepts for bathing). Religious law : *snāna*.
f. 1^{1v}. - f. 13^{1r}. l. 3. Poleman no. 3325. The identification of the text is not certain. Text begins :

om śrīgaṇeśāya namaḥ/
om namo śivanāmtāya sahasrar mataye sahasrayā
dākṣīśīroruvāhave/
sahasranāmne puruṣāya śāśyate sahasrakoṭīyugadhāriṇe
namaḥ/
vāmapāde/
namaḥ kamalanābhāya namaste jalāśāyine/

By tradition, a religious Hindu bathes three times a day, at sunrise, noon and sunset, beginning each day with ritual ablutions. Manuscripts such as the one here provide texts which help set the proper frame of mind for devotion and approaching deity.

(2) *Samdhyāvidhi* (percepts for daily ritual). Religious law : *āhnika*, f. 13^{1r}. l. 4 - f. 65 v., l. 2. Poleman no. 3076. Several different texts carry this description in their colophons. Text begins :

om atha samdhyā likhyate/
om praṇavasya rṣir brahmāgāyatrīm chaṇḍa eva ca/
devo gnir vyāhūtīśucaviniyogaḥ prakīrtitaḥ/

(3) *Nārāyaṇaṣaṭpadī* (°dīn ?). *Stotra*. f. 1^{2v}. (bound at end of volume, r. blank) - f. 3^{2r}. l. 5. Poleman no. 1860. Title : "Six verses for Nārāyaṇa"; punningly, "A Bee (and perhaps a name for a flower, "that having bees") for N°". Nārāyaṇa is a name for the great god Viṣṇu, seen often as a deity of salvation. The placement of this text here emphasizes this aspect of the patron's religious goals, and serves to entreat for salvation as the result of his subsequent worship. The text is without previous citation. It is different from the well-known *Viṣṇuṣaṭpadīstotra* (*Ṣaṭpadīstotra*). Cp. also text (13) below, which also differs. Poleman misconstrues the title as *Nārāyaṇaṣaṣṭyādi*. The text's present listing in the *New Catalogus Catalogorum*, vol. 10 (Madras, 1978), 100a reflects this. Text begins :

om namo nārāyaṇāya nāmaḥ/
om je nārāyaṇa je puruṣottama je vāmana kaṁṣāre/

uddhara māṃ asureṣa vinināsanayatito haṃ saṃsāre
(haṃsaṃ sāre)/
choraṃ hara mama nara kariṇe seśada kalmaśavāraṃ/
māṃ anukāṃpaya dīnamanāyaṃ kuru bhava
sāgarapāraṃ/1/

(4) [*Śivārti*] *Śivārtī. Stotra.* f. 3² r., l. 5 - f. 4² v., l. 6. 9 verses. Poleman no. 3421. Cp. text (16) below which also appears to give *Śivārtī* as its title. A. C. Burnell's Tanjore catalogue (London, 1880), 144a, 146a notes manuscripts containing texts titled *Śivārti* and *Śivārtiprakāra*. This catalogue rarely gives first lines. T. Aufrecht, in his *Catalogus Catalogorum*, vol. 1 (Leipzig, 1891), 655b comments that in both cases the word *ārti* is apparently used for *ārati* 'rapture, delight'. Poleman, on the basis of not finding other citation to a title °*ārtī*, lists the text here as previously unreported and miscellaneous. Cp. text (5) immediately below where *ārati* appears for *ārati*. Just so here, *ārtī* for *ārati*? Hence, more properly here, *Śivārti* as in Burnell's Tanjore catalogue? Might the vowel confusion indicate a Telugu script source, or ultimate Telugu script source, for the text of this *stotra* and perhaps text (5) below? Or do we simply have a hyper-correct Sanskrit f. form? It also is not clear whether it is this *stotra*, text (16), or both, if either, which is to be identified with the Tanjore *stotra*. The library in Tanjore has not responded to my request for a transcription of this manuscript. A text by the name of *Śivārati* was published together with a text by the title of text (5) below in Bombay in 1860 in a small volume titled *Āratyā Pañcaka*, but this text is different from both the one here and text (16) below. An *ārati* is a term used in modern popular Hinduism to refer to a waving of light before an altar, a light offering, with regard to which see Carl Gustav Diehl, *Instrument and Purpose : Studies on Rites and Rituals in South India* (Lund, 1956). The term is rare, and is recent in its use in titles. It has possible Tantric overtones. In this regard note the unusual f. form *omkārā* in the text here, indicating Tantric content. We have both in this text and in text (16) below, q.v., the f. form *haṃsā* as well. In context, this also indicates Tantrism. Text begins :

oṃ namaḥ śivāya/
oṃ je śiva omkārāhara śiva omkārā
brahmāviṣṇusadāśiva hā ardhamaṅgaurā/
hara hara hara mahādeva/1/

(5) [*Gaṇeśārati*] *Gaṇeśa-ārati. Stotra.* f. 4² v., l. 6 - f. 6² r., l. 1. 6 verses. Poleman no. 4443. A text by this title was printed in Bombay in 1860. The *New Catalogus Catalogorum*, vol. 5

(Madras, 1969), 285b does not list any manuscripts of the text, though. The 1860 Bombay printed text is different from the text here. Poleman misconstrues the title given in the colophon, and lists the work as the only example of a text titled *Gaṇeśānti* in his Tantra, Śaiva and Spanda section. This text's present listing in *New Catalogus Catalogorum* reflects this. Text begins:

om śrīgaṇeśāya namaḥ/
om je je jī gaṇarāja / vidyāsukhadātā/
dhannatum haro darśana je /
je je jī gaṇarāja/1/

(6) *Pañcākṣarastotra*. *Stotra*. f. 6²r., l. 1 - f. 7²r., l. 4. 6 verses. Poleman no. 1864.

(7) *Śivastotra*. *Stotra*. f. 7²r., l. 5 - f. 9²r., l. 4. 8 verses. Poleman no. 1902. Several different texts carry this title. Text here begins:

om namaḥ śivāya/
om gaurikṣarāya niśirājakalādhārāya/
lokāmtakāya bhujagāyī kāmkanāya/
gaṅgādhārāya gajadānavamardanāya/
dāridraduḥkhadahanāya namaḥ śivāya/1/

(8) *Śivarāmastotra* [by Ramananda Sarasvati]. *Stotra*. f. 9²r., l. 5 - f. 11²v., l. 3. Poleman no. 1864.

(9) Unidentified *stotra*. *Purāṇa*. f. 11²v., l. 4 - f. 15²r., l. 2. 12 verses. Poleman no. 1619. Marginal abbreviation śi°. The colophon, which lacks every other character, reads: i[tī] śrī . di . śva . pu[rā]ṇe . va . kā[-?]rasto [traṃ] sa[m̐pu]rṇa [m̐sa]mā[pta]m/śu[bha]m/. Poleman suggests a text by the title *Śivaprakāśarastotra*, in the *Ādipurāṇa*, as a possible identification. More probable, the text is to be found in the *Nandikeśvarapurāṇa*, which contains a text titled *Śivastotra* of which several manuscripts have been reported. See the *New Catalogus Catalogorum*, vol. 9 (Madras, 1977), 333a. Could [śi]va . kā[-?]rasto[tra] here be the *Nandikeśvarapurāṇa*'s *Śivastotra*? Note, the space after the syllable 'kā' could be due to its position at the end of a line. Could the full title be *Śivaprakāśastotra* (a praise of Śiva's nature)? This would agree with the contents which describe Śiva at length from a number of different aspects in sequence, a not uncommon method of praise in *stotras*. Text begins:

om namaḥ śivāya/
omkāre ādirupe sukṛtabahuvīdhe śvetapīte ca [//]

*kṛṣṇe nīle raktaṃ kar . . tam parirahite sarvavarṇe/
prāṇāyāne samāne viparijakaṛaṇe vyānapīṭhe/
eko vyāpī śivo haṃ iti vadati harir nāsti devo dvitīyaḥ/1/*

(10) *Rudrāṣṭaka*. Tantra, Śaiva and Spanda. f. 15² r., l. 3 - f. 17² r., l. 1. 9 verses. Poleman no. 4604. Poleman notes the title to be without previous citation. Cp., though, *Rudrāṣṭaka* in Peter Peterson's Ulwar catalogue (Bombay, 1892), reported by T. Aufrecht., *Catalogus Catalogorum*, vol. 2 (Leipzig, 1896), 222b and Poleman no. 1888 *Rudrāṣṭakastotra* (*Stotra*), which is the same text. Rudra is one of the many names for the great god Śiva. Text begins :

*oṃ namaḥ śivāya/
oṃ namomīsamīśānanīrvāṇarūpaṃ[/]
vibhūṃ vyāpakaṃ brahmavedaṃ svarūpaṃ[/]
nījaṇnirguṇaṃ nirvikalpaṃ nirīhaṃ[/]
vidākāśaṃ ākāśaviśvaṃ bhaje haṃ [/]1[/]*

(11) *Gaṇeśabhujaṃgastotra* [attributed to Śaṃkara]. *Stotra*. f. 17² r., l. 2 - f. 18² v., l. 5. 9 verses. Poleman no. 1766. More than 300 hymns of praise are attributed to the great 9th c. A.D. philosopher Śaṃkara. These are far more than probably were penned by his hand. Several factors may be responsible for this. Many of these hymns may have been authored by the succeeding heads of the religious order founded by Śaṃkara who are also known as Śaṃkara, or Śaṃkarācārya. And in general, ascription of authorship to a person other than the actual author, or to a deity, is not uncommon in India. Regarding Śaṃkara's authorship of some of the more famous of the hymns attributed to him, see W. Norman Brown, *The Saundaryalaharī or Flood of Beauty traditionally ascribed to Śaṃkarācārya*, Harvard Oriental Series 43 (Cambridge, Massachusetts, 1958), 25-30 and Robert E. Gussner, "A Stylometric Study of the Authorship of Seventeen Sanskrit Hymns Attributed to Śaṃkara", in *JAOS* 96.2 (1976), 259-67.

(12) *Nīlakaṇṭhastotra*. *Purāṇa*. f. 18² v., l. 5 - f. 21² r., l. 6. Poleman no. 1078. Nīlakaṇṭha, 'one having a blue neck', is a name for the great god Śiva. It refers to Śiva's having drunk the poison churned up from the ocean of existence in order to save the other gods from destruction. This turned his neck blue.

(13) *Prathamaṣaṭpadī* (oḍin ?). *Stotra*. f. 21² v., l. 1 - f. 23² r., l. 6. Poleman no. 1867. Title : 'Six Verses for the First One'. Regarding the term *ṣaṭpadī* see text (3) above. Poleman notes the title to be without previous citation. A well-known *Ṣaṭpadīstotra* has been attributed to Śaṃkara and some scholars have viewed this to

be authentic. As pointed out under text (3) above, it differs from the *stotra* here. The presence of two *stotras* in this collection which refer to themselves as *ṣaṭpadī*, neither of which has been reported elsewhere in manuscript, placed together with a *stotra* traditionally attributed to Śaṃkara suggests (1) that the patron of this manuscript held Śaṃkara in high esteem, but was not an adherent of Śaṃkara's *advaita* philosophy, and (2) that these two *stotras* may have been composed by, or for, the patron of this manuscript. We may have the autographs, or copies very close to the autographs of these two *stotras* in this manuscript. The same may be the case with regard to texts (5) and (15) which are similarly single manuscript copies, and also perhaps with regard to one of the two texts which refer to themselves as *Śvārtī*. Or do we just have late but very popular texts which were so well-known or so late that they are not reflected elsewhere in manuscript? The situation might be resolved when we are able to see whether the *New Catalogus Catalogorum* has been able to locate other copies of some of these *stotras*, and by an investigation into the source of the 1860 Bombay printing of the *Gaṇeśārati*. If we have autographs here, these are of historical significance in local Punjab Hills history since patrons of manuscripts such as these were eminent men. The text here begins :

om namo nārāyaṇāya namaḥ/
om dhoyaṃ sadāparibhava dohaṃ
tīrthas padaṃ śivavirīncinutāṃ śaraṇaṃ[/]
bhṛtyārtiḥ praṇatapālabhavābdhipotaṃ
vaṃde mahāpuruṣa te caraṇāraviṇḍaṃ[/]1[/]

(14) *Mahāpuruṣastava* [from the *Mahābhārata*]. Epic. f. 23² v., l. 1 - f. 27² r., l. 6. Lacks end. Folio 27² v. blank. Poleman no. 876.

(15) Unidentified *stotra* [*Rāsakṛīḍā*?]. f. 28² r., l. 1 - f. 29² v., l. 1. 8 verses. Poleman no. 1916. Marginal abbreviation : *rā° kṛī°*. The colophon, lacking the red lettering which was to be inserted, reads : i[ī] śrīrāsakṛī[ḍā] . . / su[bha]lm / om [na]maḥ [śi]vā [ya]/. There does not appear to be more space after *śrīrāsakṛī[ḍā]* for anything other than *samāptaṃ*. This charming *stotra* is about the round dance done by Kṛṣṇa and the cowmaidens (*gopīs*). The text is without previous citation. It is clearly not the well-known *Rāsakṛīḍā* from *skandha* 10 of the *Bhāgavatapurāṇa*, or the *Rāsa-kṛīḍāmāhātmya*. The text begins :

om aṃgaṇāṃ aṃgaṇāṃ aṃtare mādhave
mādhavaṃ mādhavaṃ cāmtare nāṃgaṇā[/]
ity amā kalpite maṃḍale madyagā[/]
saṃjagovenūṇā devakīmaṇḍanā[/]1[/]

(16) Unidentified *stotra* [*Śiva-ārṭī*, for *Śivārṭī*?]. f. 29² v., l. 2 - f. 32² r., l. 3. 8 verses numbered. Poleman no. 3422. Marginal abbreviation : śī° ā°. The colophon, which lacks every other character, reads : i[ti] śrī . va . rī [saṃ]pū[rṇa]lm [/] śu[bha]m /. Poleman construes the title of the text as *Śivārṭī*, regarding which see text (4) above. The refrain is the same, but the metre here differs from the metre at the beginning of text (4). It is not clear whether all of the unusual f. forms are integral to the text or whether at least some are, rather, due to mislection. Text begins :

om [na]maḥ [śi]vā[ya] [1/1]
 om kailāse giriśikhare kalpahumavipane [//]
 guṃjātam adhukarakuṃje kuṃjavane gahane [//]
 kokilakuṃjatakkelatahaṃsāvanalalitā [//]
 racayati kalākālāpaṃ nṛtyati madhusahitaṃ [//]
 hara hara hara mahādeva [//]
 jai gaṃgādhara hara giriḃdhīśā [//]
 tvaṃ māṃ pālāya nityaṃ kṛpayā jagadīśā [//]
 hara hara—° [//]1[//]

(17) Unidentified *stotra*. f. 32² r., l. 4 - f. 33² r., l. 6. Text ends incomplete in verse 5. Poleman no. 1915. Marginal abbreviation : de°. No colophon. The text is possibly one of a number of texts which refer to themselves as *Devīstuti* or *Devīstotra*. Text begins :

om . bha . va . na[maḥ] [//]
 om hariharapaṃkajapāṇiṣaṃ [//] arcitapādayuge vijaye [//]
 kṛtamaḥiṣāsuraadarpanivāraṇatatkṣaṇalabdhajaye [//]
 bhagavartidavimahābhāyanāśinīnirmalabhaktipare [//]
 jaya jaya devīm amāṃṣṭavarṣinīdarśanam ehi pare [//]1[//]

(18) [*Aparādhakṣamāstotra*, for *Śiva*?] *Śiva-āparādhakṣa . stotra . Stotra* . f. 33² v., l. 1 - f. 36² v., l. 9. 14 verses. Poleman no. 1903. Poleman suggests with question *Śivāparādhakṣaṇastotra*, which title he notes to be without previous citation. More probable, the text is one of the various (?) *Aparādhakṣamāstotras*, on *Śiva*. One or two manuscripts have been reported for each of these, one attributing authorship to Śaṃkara. See the *New Catalogus Catalogorum*, vol. 1 rev. (Madras, 1969), 247b - 8a. Text begins :

om namaḥ śivāya [//]
 om ādau karmapraśaṃgā kalayati kaluṣaṃ mātṛkukṣau
 sthitasya [//]
 tanmūsasesamadhya kathayati nitarāṃ jāṭharo jātaṃ
 vedā [//]

yad yad dvā tatra duḥkhaṃ viṣagattiviṣamaṃ śakyate
ketavaktuṃ [/]
kṣatavyome parādhaḥ śiva śiva śiva bho śrīmahādeva
śaṃbho [/] 1 [/]

MS. 224. ILLUSTRATED COLLECTION OF 15 HINDU RELIGIOUS TEXTS. Sanskrit. *Devanāgarī* script. 12.5 cm. × 7.7 cm./ 5" × 3". 176 ff., each text foliated separately, except text (4) unfoliated; texts (7) - (9), ff. 1 - 8, followed by 2 blank folios; texts (14) - (15), ff. 1 - 9. Text (1) is bound in reverse order upside down with f. 4 v., at the beginning, blank, 5 lines per folio. Kashmirian paper, waxed. The script is *Devanāgarī* as written in the *Sāradā* script area (Kashmir and Punjab Hills). The paper is brown, brittle and slightly water stained. A simple geometric device in red, orange and black has been scored around the text on each folio side. The manuscript is bound in cardboard covers over which there is blue and gold brocade cloth. The selection of texts suggests that the manuscript's patron was in part a devotee of Viṣṇu as glorified in certain well-known texts, but that this was subordinate to his especial regard for Devī. Again, most of the texts here as above are examples of *stotra* literature, and are intended to set an appropriate frame of mind for devotion. Two *stotras* which here serve to set the stage and implore for such a proper frame of mind and successful worship are followed by 2 texts regarding daily ritual, and by well-known Vaiṣṇava texts, the *Bhagavadgītā*, the *Bhāgavatapurāṇa* and the *Rāmāyaṇa*, represented 'in essence', along with 2 full Vaiṣṇava *stotras* and culminating with 4 full *stotras* devoted to the great goddess Devī.

The manuscript contains 2 illustrations, both full page color miniatures, one before text (5), chapter 1 of the famous *Bhagavadgītā*, and the other before text (13), the *Devīkavaca*. The style is a popular style of Mandi (Punjab Hills), bold, primitive and crude. As in other Mandi paintings, the hands are depicted overly large and the figures wear wooden clogs. The jagged angular rhythms and geometric drama of the compositions, though, the depiction of *liṅga* (phallus) -shaped forms in the *Bhagavadgītā* illustration, and the intricate borders of zig-zags and cartouches, suggest the style of the painter Sañjnu. The illustrations can perhaps be dated to c. 1808 - 10. They are from the beginning of the period of Guler influence in Mandi painting. These illustrations may well be the only paintings reported to date in the style of Sañjnu which are in a Mandi popular style. *Palette*: akin to that of Deccani styles, dark gray, gray, dark blue, dark brown, brown, dark yellow-brown, dark crimson, crimson, sunset red, yellow, pale yellow, white, black. The

backgrounds are uniformly dark gray. The foreground of the *Bhagavadgītā* illustration is composed of two small areas, one of dark blue and one of sunset red. That of the *Devikavaca* painting is a larger area, uniformly dark brown.

The themes of the illustrations are noted below under the discussion of the texts in the collection. That the *Bhagavadgītā* at Mandi was illustrated as here suggests that although only conventional adherence was given to Vaiṣṇavism in Mandi, the popularity of Vaiṣṇavism and certain of its well-known and well-regarded texts did nevertheless extend to the popular predominantly Śaiva level. The selection of texts, though, does suggest the lip-service adherence to Viṣṇu, comparable to that given to Madho Rai (a manifestation of Viṣṇu) in his position as the official state deity.

(1) [*Gaṇapatiṣṭotra*] *Gaṇeśastotra*, attributed to Śaṅkara. *Stotra*. 4 ff., f. 1 r., l. 1 - f. 4 r., l. 5. Poleman no. 1767. Beginning Hindu texts and devotions with an invocation in one fashion or another to the god Gaṇeśa, and also frequently to the goddess Sarasvatī as below, is standard. Both are deities representing wisdom and learning. Gaṇeśa is further implored for a propitious outcome to all undertakings.

(2) *Sarasvatīdvādaśanāman*. *Purāṇa*. 2ff., f. 1 r., l. 1 - f. 2 v., l. 2 Poleman no. 1502. This text, titled "The Twelve Names of Sarasvatī", is noted by Poleman to be without previous citation. Text begins :

om śrīgaṇeśāya namaḥ/
om sarasvatī mayā drṣṭvā vīnāpustakadhārīnī/
haṃsavāhanīsamāyuktā vidyādānakaro mam /1/

(3) *Samdhyā* ? Religious law : *āhnika*. 17 ff., f. 1 r., l. 1 - f. 17 r., l. 4. Poleman no. 3071. A treatise on *saṃdhyā* (daily ritual). The colophon reads simply, "iti śrīsaṃdhyā saṃpurnam." Text begins :

om śrīgaṇeśāya namaḥ /
atha saṃdhyāprayogaḥ /
om puṇḍarīkāṅgaḥ punāt /
gāṃ vāme va un kuśān dakṣiṇe pāṇau pavitraṃ kuśātrayaṃ
dhṛtvā /

(4) *Samdhyātarpaṇa*. Religious law : *āhnika*. 8 ff., unnumbered. Poleman no. 3072. Identification not certain. Text begins :

om devā āyāntu / om brahmā trpyatām / om viṣṇus
trpyatām /

om rudras tṛpyatām / om prajāpatis tṛpyatām / om devā
yajñās
tathā nāgā gandharvāpsaraso surāḥ / :

(5) *Bhagavadgītā*, *adhyāya* 1. Epic : *Mahābhārata*, Special texts. 21 ff., f. 1 r., l. 1 - f. 21 r., l. 4. Poleman no. 936. Preceded by a full page miniature painting of Kṛṣṇa as the charioteer of Arjuna. The *Bhagavadgītā* constitutes a discussion between Arjuna and Kṛṣṇa, his cousin and charioteer, prior to the battle of the *Mahābhārata*. In it, Kṛṣṇa reveals himself as the godhead. The text has been widely translated. Arjuna here seems to be modelled after either Gaur Sen or the Great Mandi warrior Sidh Sen, although wearing a *jāmā* style not adopted by Mandi rajas till Surma Sen (1781 - 88). The geometric *liṅga* (phallus) shapes which jut upward behind both Kṛṣṇa and Arjuna suggest the predominantly Śaiva nature of worship in Mandi.

(6) *Bhagavadgītā*, *adhyāya* 10. Epic : *Mahābhārata*, Special texts. 12 ff., f. 1 r., l. 1 - f. 12 v., l. 5. Poleman no. 937. Chapter 10 of the *Bhagavadgītā* contains Kṛṣṇa's description of his divine nature :

"I, O Gudakesha, am the SELF, seated in the heart of all beings ;

I am the beginning, the middle, and also the end of all beings. 20

"Of the Adityas I am Vishnu ; of radiances the glorious Sun ; I am Marichi of the Maruts ; of the asterisms the Moon am I." 21

Translation of Annie Besant (9th ed. Madras, 1955).

(7) *Saptaślokiṅgītā*. *Gītā*. 5 ff., f. 1 r., l. 1 - f. 5 v., l. 4. Poleman no. 1672. The *Saptaślokiṅgītā* is 7 select verses from the *Bhagavadgītā* : BG 8.13, 11.35, 13.13, 8.9, 15.1, 15.15, 9.34.

(8) *Catu[ś]ślokiḥbhāgavatī* [from *Bhāgavatapurāṇa* 2.9.31 - 7]. *Purāṇa*. 2 ff., f. 6r., l. 1 - f. 8 v., l. 3. Poleman no. 1370.

(9) *Ekaślokiṛāmāyaṇa*. *Stotra*. 1 f., f. 8 r., l. 1 - f. 8 v., l. 3. Poleman no. 4199. Other manuscripts of this text have been reported since Poleman's *Census*. Poleman lists the manuscript as being perhaps *Vedānta*. The text of the manuscript, however, clearly is not. The text is, in basics, a single verse synopsis stating main events in the *Rāmāyaṇa*.

(10) *Govindastotra* [**stava*], attributed to Śaṅkara. *Stotra*. 5ff., f. 1 r., l. 1 - f. 5 v., l. 5. Poleman no. 1767. The text is also known as the *Dvādaśamañjarikā* and the *Carpaṭapañjarikā*.

(11) [*Viṣṇusahasranāman*] *Viṣṇor nāmasahasrastotra*, from the *Mahābhārata*, *Śāntiparvan*. Epic. 51 ff., f. 1 r., l. 1 - f. 51 v., l. 1. Poleman no. 882. The text provides 1,000 descriptive names for the god Viṣṇu. It is one of a group of such texts which give 1,000 names each for various Hindu deities.

(12) [*Mahimnaḥ stotra*] *Mahimnākhyastotra*, attributed to Puṣpadanta. *Stotra*. 21 ff., ff. 1 r., l. 1 - f. 21 v., l. 5. Poleman no. 1707. The text, which describes the greatness of the goddess Devī, was critically edited and published with translation and illustrations by W. Norman Brown for the American Institute of Indian Studies (Poona, 1965).

(13) [*Devikavaca*] *Devyā kavaca*, attributed to Hariharabrahmā, from the *Varāhapurāṇa*. *Purāṇa*. 16 ff., f. 1 r., l. 1 - f. 16 v., l. 5. 55 verses. Poleman no. 1444. The text is also known as the *Caṇḍīkavaca* and the *Brahmakavaca*. The name of the author to whom the text is attributed is taken from the names of the text's speakers, Hari (Viṣṇu), Hara (Śiva) and Brahmā. Preceded by a full page miniature painting, noted by Poleman under his listing for no. 1707, text (12) in this manuscript. The painting depicts the text's 3 speakers making obeisance to the goddess Devī. That the only other text aside from the *Bhagavadgītā* illustrated in this manuscript is devoted to Devī can be explained as due to the popularity of Devī worship in Mandi.

(14) *Argalāstuti* [*°stava*, *°stotra*]. *Purāṇa*. 5 ff., f. 1 5., l. 1 - f. 5 r., l. 4. Poleman no. 1025. The text is associated with the famous *Devīmāhātmya*, which narrates various martial deeds of the goddess Devī against different demons in Hindu mythology.

(15) [*Kīlakastotra*] *Bhagavatyāḥ Kīlaka*. *Purāṇa*. 5 ff., f. 5 v., l. 1 - f. 9 r., l. 6. 14 verses (10 - 14 verses in different manuscripts) on the goddess Devī. Poleman no. 4501. The text is attached to the *Devīmāhātmya*. Its title, abbreviated *k°* in the margins, is misconstrued by Poleman, who lists it in his Tantra, Śaiva and Spanda section. Cp. also Poleman no. 1420, *Bhagavatīkīlaka*, from the *Markaṇḍeyapurāṇa*. The *Markaṇḍeyapurāṇa* is the larger text in which the *Devīmāhātmya* has been placed by the tradition. *The New Catalogus Catalogorum*, vol. 4 (Madras, 1968), 171a - b omits mention of or cross-reference to both these manuscripts under its listing of the *Kīlakastotra*.

MS. 85.333. *Viśvabrahmakāvyamulu*, according to label together with the text.¹ Telugu. Religious lyrical poetry. Telugu script. A little over 3 folio sides of invocations in Sanskrit written in Telugu script are also with the text. 10 1/4" - 13 9/16" × 1 1/4" - 1 3/8". 16 ff., unnumbered. 5 - 9 lines per folio. Talipot palm leaves. 2

lateral holes in each palm leaf. Colophon appears to be missing. Probably incomplete, and perhaps in disarray. The Telugu letters are incised, with a brown powder rubbed in so as to make the letters clear for reading. There are a few marginal corrections. No wooden covers are together with the text.

The left of each folio is lacking anywhere from close to an inch to approximately two inches of text on each of the folios. On all except the physically first and last of this set of folios, the right margin is intact. The first and last folios are missing considerable text from the right margins as well.

On the front of the folio tentatively numbered 'one', there is pasted a piece of paper with writing in a late 19th c. hand which reads 'No X'. This folio is tentatively numbered 'one' on account of this. The folios tentatively numbered '15' and '16' contain the Sanskrit invocations in Telugu script, reading from f. '16 v.' to the first line of f. '15 r.' The remainder of f. '15 r.' is blank. Normally, these would be at the beginning of the text or at the end of the text reading to the end of the MS. F. '14 v.', however, does not appear to be the beginning of the text. It is to be added that the ordering of the folios here is definitely old.

The label together with the manuscript has written on it 'N° X' in the same hand as the pasted piece of paper. There is also written on the label the title in Telugu script, which can only be seen clearly under ultra-violet light, and very indistinctly, in Roman script, something which appears to read, 'Vishva Brahma Poems'.

Brahma is the creator god of the Hindu pantheon in its masculine form, the impersonal principle behind the universe in its neuter form.

Given here is the first physical line of text of f. '1 r.' As it is not completely clear that this is the beginning of the text, this is provided here less for purposes of identification, than to give an idea of the way the text reads. It runs :

āditālam/

apla vādagā . . daivāmayi[p?] lāṇadisūda[vū?]/

pallavi/

a[tl?] agadurayikīraṇa . . velliveḷḷa [pasted piece of paper] . . .

It has not been possible to trace the text in the sources on Telugu literature available to me.

This manuscript was not recorded in Horace Poleman's *Census of Indic Manuscripts in the United States and Canada*.

NOTES

1. I would like to thank Koneru Ramakrishna and Bodduluri Radhika Mohan Choudhary for their help with the Telugu of this manuscript.

ILLUSTRATIONS

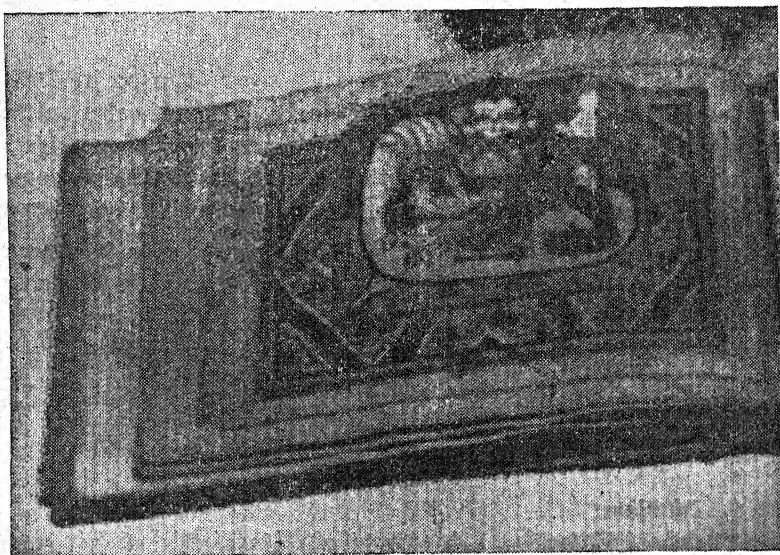


Fig. 1. An illustration of Viṣṇu reclining during the periodic dissolution of the universe, accompanying chapter 10 of the *Bhagavadgītā* in MS. 222. Basohli (Punjab Hills), c. 1760-65. Chapter 10 of the *Bhagavadgītā* is frequently accompanied by an illustration showing a specific universal form of Kṛṣṇa or Viṣṇu, such as Śrī Nāth-jī, or Jagannāth, or *om*. In other manuscripts, the specific aspects of Kṛṣṇa described are illustrated verse by verse. The illustration here is one which normally accompanies the second text of this manuscript, the *Viṣṇusahasranāman*.

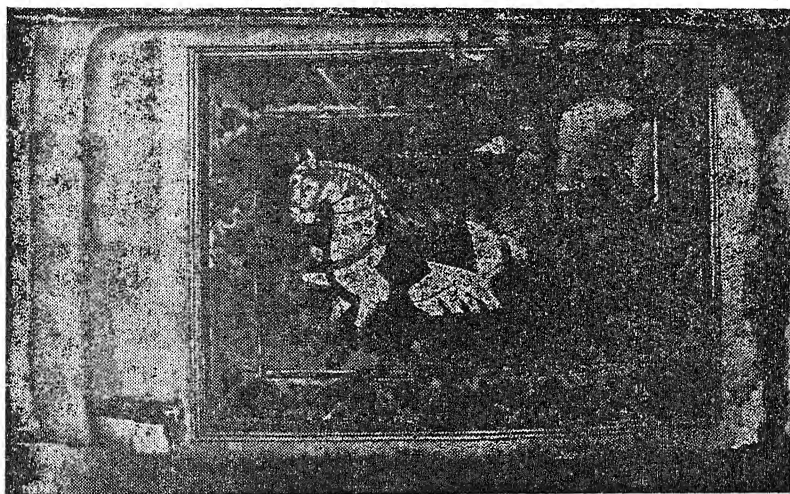


Fig. 2. An illustration of Kṛṣṇa as the charioteer of Arjuna, accompanying chapter 1 of the *Bhagavadgītā* in MS. 224. Style of the painter Sañjnu in a popular style of Mandi (Punjab Hills), c. 1808-10. Notice the geometric *liṅga* (phallus) shapes which jut upward behind both Kṛṣṇa and Arjuna, suggesting the predominantly Śaiva nature of worship in Mandi.

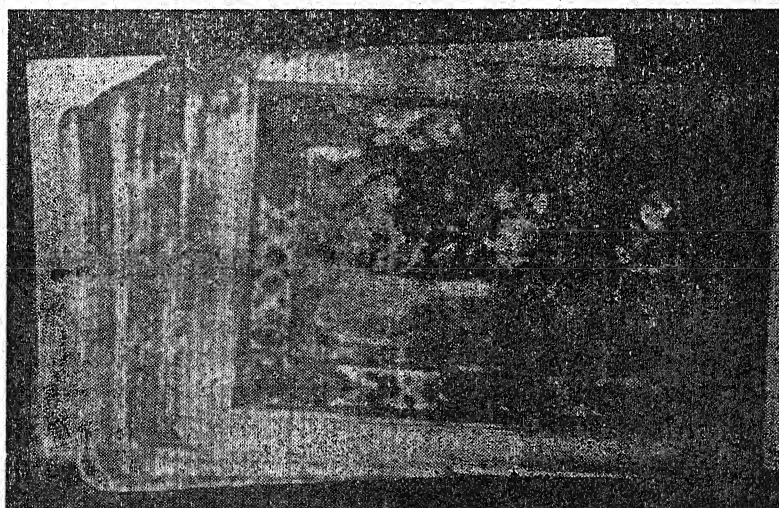


Fig. 3. An illustration of Viṣṇu, Śiva and Brahmā making obeissance to the goddess Devī, accompanying the *Devīkavaca* in MS. 224. Style of the painter Sañjnu in a popular style of Mandi (Punjab Hills), c. 1808-10.

"TIBETAN CHRONOLOGICAL TABLES AND INDIAN HISTORY".*

ALAKA CHATTOPADHYAYA

Mr. Chairman, Sir, and Colleagues,

I wonder if it is permissible—or even pertinent—for one to speak specially in a meeting of the Asiatic Society on any aspect of the light Tibetan historiography has to throw on our understanding or Indian history without first paying due homage to the memory of A. Csoma de Koros (1784-1842). Without him, the world of modern scholarship outside the traditional monasteries of Tibet and Mongolia would have remained (how long we do not know) completely unaware of the very possibility of Tibetology having anything to do with Indian studies. Therefore, standing on the floor of the Asiatic Society to speak on the subject, one cannot but feel highly honoured to recall that from July 15, 1831, till his death (at Darjeeling) on April 11, 1842, this pioneer of modern Tibetology worked in *our* Society and even lived in a corner of *our* Society's premises, which makes it some place of pilgrimage as it were for any Tibetologist today.

Already in his *A Grammar of the Tibetan Language* published in 1834, and more particularly in his remarkable article *Enumeration of Historical and Grammatical Works to be met with in Tibet*, published in the Society's journal (then called JASB) in 1839, Csoma drew our attention to the subject; notwithstanding all that is later added to its elegance and expansion of the list of Tibetan historical works, the basic certainty and scientific approach to these works remain on the whole unaffected.

To this it is necessary to add the contributions of one of his junior contemporaries who, working on independent lines, did the most marvellous work to enrich our knowledge of the new historical horizon opened by Csoma. He was Sarat Chandra Das (1849-1917), born in Chittagong a few years after Csoma's death. Since we shall presently be obliged to complain much about Das' scientific rigour, we should first take the opportunity of mentioning some of the main points of his remarkable contributions. Besides the well-known fact that his *A Tibetan-English Dictionary* (first published in 1902) now

* This paper was presented at the academic meeting of the Asiatic Society held on 1.8.88 under the chairmanship of Dr. Ashin Das Gupta, Administrator, Asiatic Society.

enjoys the status of an indispensable working tool for any modern Tibetologist, he contributed a very considerable number of articles, most of which were published again in *our* Society's journal, besides editing and translating a number of significant Tibetan texts. Referring to these, as it is rightly observed by an otherwise rather staunch critic of S. C. Das, namely A. I. Vostrikov¹ (1904-1937) : "it is precisely to him (i.e. S. C. Das) that the world of Tibetology is indebted for its first familiarity with the contents of a number of historical texts which hitherto before were totally unknown or were known only by title." (p. 7 note).

The mention of S. C. Das here has a peculiar advantage for introducing our subject. One of his outstanding contributions was editing and publishing in Tibetan original of a Tibetan text, which is briefly referred to as *dPag bSam lJon bZaṅ*², literally meaning "the wish-yielding tree", and written by one briefly mentioned as Sum-pa. The form in which this work reaches us is in two parts. The first part bears the title *History of the Rise, Progress and Downfall of Buddhism in India*. Evidently realising that the Tibetan text itself could only be of value to a limited circle of our historians, Das took care to add to his edition of the work a rather detailed "contents" of it in English—contents intended to give the readers the points he considered most relevant for our historians.

It will be irrelevant to add here the well-known fact of how much the modern historians have drawn on this. The reason for this, too, is hardly in need of much explanation. Certain historical data otherwise completely unknown—and also certain others only partially known from other sources—were to be found in the contents.

But let us first note why a work essentially on the history of Buddhism should have borne such an apparently quaint title as "the wish-yielding tree". The reason for this gives us a clue to the peculiarity of Tibetan historiography itself. History for the Tibetans was essentially a history of Buddhism, or, more properly, a mode of propagating the glory of Buddhism. But the point also remains that Buddhism as a creed could not possibly be discussed in its bare isolation. It was connected after all with political, social and even economic factors. So while discussing the rise, progress and downfall of Buddhism in India, the Tibetan author had to go into substantial detail of these aspects of Indian history.

Incidentally, after the downfall and virtual extinction of Buddhism in India, much of these related aspects of the Buddhist creed were also practically forgotten in India. With the publication of S. C. Das' contents of the work, our historians naturally found in these many a data that they considered most relevant as well as significant for the reconstruction of Indian history. Tibetan historio-

graphy thus proved somewhat indispensable for the history of India.

But not only of India. It proved so also for some of the neighbouring countries of Tibet, particularly to those that came under the influence of the Buddhist creed. As it is rightly observed, "the history of the Tibetans is so closely linked to the fate of a number of peoples of Asia that its study is necessary for any research in the history of the Mongols, the Oirats, the Tungut kingdom, Khotan and even India and China on the whole".³

I have mentioned only one example of the relevance of Tibetan historiography for understanding Indian history, particularly because our scholars are already familiar with this. But the number of such examples can easily be multiplied, if we take note only of such Tibetan historians like Bu-ston (A.D. 1290-1364), Tāranātha (A.D. 1575-), Gos lo-tsā-ba (A.D. 1392-1481). The monumental work of the last was published by our Society with the title *The Blue Annals*⁴ as translated by G. Roerich into English.

With these preliminary points in mind, we may pass on to the main question we propose to discuss in the present paper, namely the significance of what are called the Chronological Tables. The Tibetan word for Chronological Table is *bsTan-rtsis re'u-mig*—*bsTan-rtsis* literally meaning "chronology of doctrine", and *re'u-mig* meaning "Table". The importance attached by the Tibetan historians to the Chronological Tables is so great that these seem to form an independent genre of Tibetan historical literature. The reason for this is not far to seek. Chronology or the matter of dating evidently forms the skeleton for any real understanding of history.

Incidentally, it may not be irrelevant to mention here one point of significance. Any reader of Roerich's translation of *The Blue Annals* can easily see how its author 'Gos lo-tsā-ba keenly felt the need of dating practically everything he considered important. It is difficult, indeed, to come across a more chronology-minded historian not only in Tibet but also in any other country. By contrast, the historian Tāranātha⁵ gives the date of any event or person very rarely, if at all. In the introductory portion of the work, he provides us with a table of the famous kings, *ācārya*-s and the patrons of Buddhism ; then, in the text proper, he uses only such chapter-headings as "Period of King Ajātaśatru", "Period of King Sudhanu", "Period of King Aśoka", "Period of Ārya Nāgārjuna", etc. etc., and mentions the events he considers salient during these periods, without specifying the date of any.

As a matter of fact, while translating this book and specially editing it, this mode of writing history created some problems for us and we had to ask ourselves : why was Tāranātha apparently indifferent to the question of exact dating ? The only answer with which

we had to satisfy ourselves has been that a profound scholar like Tāranātha must have been saturated with the *bsTan-rtsis* literature and perhaps went to the extent of assuming his readers to have been familiar with it.

Be that what it may, we have before us what appears to have perhaps been a third model from the view-point of dating in Tibetan historiography. This is illustrated by Sum-pa's bPag-bZam-lJon-bZaṅ. In this model, apart from giving dates of events etc. within the text itself, a separate Chronological Table was added to it as an Appendix, as it were. Though for reasons best known to himself, Sarat Chandra Das, in his Tibetan edition of Sum-pa's work preferred to omit this Chronological Table altogether. But he evidently wanted to compensate this omission by preparing a special article on it. It was published in our Journal (JASB) in 1889 with the title *Life of Sum-pamkhan-po, also styled Yeśes-dpal-rbyor the author of the Rehumig (Chronological Table)*. It is a long article covering pages 37-84 : the Life of Sum-pa occupies only the first 3 pages and the rest an English translation of the Chronological Table (Re'u-mig). It remains for us to see how much of drastic revision and alterations await this English translation, without which it continues to be a source of grave academic errors.

We are told that S. C. Das apart, Sum-pa's Chronological Table was translated also by V. P. Vasil'ev in St. Petersburg ; but it remains unpublished in the archives of Leningrad. (Vostrikov 130).

For the present, however, let us leave Sum-pa and turn to some general features of the Chronological Tables. As is well-known, in the Tibetan Calendar, the years are mentioned by a system known as Sexagenary Cycle. In essence, it consists of the cycle of 60 years—each cycle called a *rab-byuṅ* (= *prabhava* in Sanskrit) and the years in it represented by the combination of twelve animal names with five elements. Thus : Fire-Hare year, Earth-Dragon year, etc. One of the problems concerning the Chronological Tables is thus decoding this system for our understanding of the year referred to in terms of the European calendar. It needs to be noted, however, that already in Appendix iv. of his *A Grammar of the Tibetan Language*, Csoma took the step towards this decoding, leaving for subsequent Tibetologists the need of modifying his result mainly on one point. In the Chronological Tables that reach us, the first year of the first *rab-byuṅ* is called Fire-Hare year, which Csoma took as equivalent to A.D. 1026. Thanks to the researches mainly of P. Pelliot⁶ and B. Laufer⁷ the modern scholars are now agreed that this should be A.D. 1027 instead, when, according to the Tibetan tradition, the Kālacakra calendar was first introduced into Tibet from some place called Sambhala which is yet to be definitely identified and even often referred to as mythical.

Zuiho Yamaguchi⁸ of Tokyo has recently (see pp 405 ff of Csoma Vol) gone into a very learned discussion concerning the relation of this Kālacakra-based Tibetan calendar with the ancient calendrical system of China. Into the details of this we do not have here the scope to enter. But it seems important to mention here that there is some risk of inaccuracy in the standard practice of mechanically converting the Tibetan years into those of standard European calendar by simply taking A.D. 1027 as the first year of the first *rub-byun* and then passing on to the subsequent years as A.D. 1028, 1029 etc. This is because of the simple reason that the beginning of a Tibetan year is not equivalent to January 1, as in the European calendar. Since the dates in the Chronological Tables are only in terms of years without mentioning the month and the exact date of the month, it may be safer for us to use as equivalents of the years rather as A.D. 1027/28, 1028/29 etc., thus allowing the scope of a certain amount of flexibility. I am personally indebted to Professor Rin-po-che of the Institute of Higher Tibetan Studies, Varanasi, for drawing my attention to this need of calculating, though unfortunately even G. Roerich's stupendous work of presenting in English translation of *The Blue Annals* full of Tibetan dates converted into European calendar he did not take note of the significance of this point.

But let us return to the Chronological Tables themselves. One feature of these is to try to determine the exact year of Buddha's *nirvāṇa*, because *formally at any rate, the* later dates of events are usually calculated in terms of the number of years supposed to have elapsed between Buddha's *nirvāṇa* and the event under consideration. But this aspect of the Chronological Tables appear to have very little interest or importance for us, because Tibetan historiography—far from being unanimous about the date of the *nirvāṇa*—seems to indulge in all sorts of conjectures, inclusive of very wild ones. Csoma himself in one of his articles published in 1826⁹ enumerates thirteen different views of the *nirvāṇa* from a Chronological Table (*bsTan-ris-si-'dod-spyin-gter-'bum*)—views that are widely off the mark. One is almost inclined to suspect that this way of somehow connecting an important event with the date of the *nirvāṇa* was a consequence of the Buddhist veneration characteristic of Tibetan historiography. In any case, in the Chronological Tables themselves this principle is not necessarily followed in practice. The authors of the Chronological Tables in fact explore other avenues for determining the dates they give. Some of these may as well be mentioned here. As far as Indian events are concerned, the possibility of drawing from some Indian source now lost to us cannot be entirely ruled out, particularly when we remember that a Tibetan historian as eminent as Tāranātha mentions¹⁰ as his main sources certain Indian works that do not

survive for us. Besides, mKhas-grub dGe-legs-dpal-bzañ (1385-1438), a very learned scholar claimed in his commentary on the *Kālacakratāntra*¹¹ that it "includes a chronological calculation (bsTan-nTsis) which was made in 1051 by Atiśa and repeated in 1257 by mChims Nam-mkha'-grags". Though it remains a matter of further research to determine how far the calculations referred to actually came from Atiśa himself or his name was associated with it just with the hope of adding authenticity to it. Be that what it may, we cannot entirely rule out also the possibility of Chinese dating influencing Tibetan historiography specially when some Tibetan event synchronised with a Chinese one. But there were other sources, too. Historians like Sum-pa, for example, left their own autobiographies giving dates of important events before their own lives. Besides, most of the Tibetan historians mentioned the dates of their own compositions, calculating how many years had elapsed between these and some landmarks in Tibetan history. Such, for example, was the peace-treaty between Tibet and China in A.D. 821-22 during the reign of Ral-pa-can, the text with date of which remains preserved in a bilingual tablet (Tibetan and Chinese) in Lhasa. Another land-mark in Tibetan history was considered by the Tibetan historians was that of coming of Atiśa to Tibet, about the date of which the Tibetan historians were particularly meticulous. Starting from this they often refer to an event by way of adding how many years had elapsed or awaited this great event. Besides there are monastic chronicles, extensive biographical literature of important personalities, travel notes, etc. which could and as a matter of fact did provide materials for the makers of the Chronological Tables, who often depended on the method of back-calculation or forward calculation from some well-established date.

In any case the methodology followed by the makers of the Chronological Tables is itself a matter of more intensive investigation. The purpose of the present paper, however, is to emphasise their importance. The importance is rather obvious. The Chronological Tables are not confined to mentioning the dates of Tibetan events alone; their makers were also interested in connecting such dates with the dates of events in the neighbouring countries—specially China, India and Mongolia. When, therefore, we have an adequately annotated translations of these, our knowledge of Asian history is expected to be substantially enriched. But the work is not easily done. It is not simply a question of preparing literal translations of these with the right way of converting Tibetan calendar but also of preparing extensive notes on the proper names mentioned in these, often somewhat cryptically. My own purpose is, in other words, to draw the

attention of our scholars—specially our historians—to the study of a subject that promises fruitful result.

I hope to be permitted to add a few words on the materials at my disposal with brief notes on the work already done on these.

As for the materials under my disposal, I should like to mention specially three chronological tables with their rough translations into English, thanks to the co-operation I have already received from Professor Lama Chimpa and Sri Sanjit Sadhukhan—the latter at present working with me. These three chronological tables are :

1) *bsTan-pa'i-gsal-bved-chen-po-bod du-rim-gyis-byuñ-ba'i-lo-tshig-re'u-mig-tu-bkod-pa'i-tshigs-lun-tshigs-chun-rtags-byed-gser-gyi-ni-ma-'od-zer-bkra-ba*, written by the first 'Jam-dbyans-bshad-pa named Nāg-dbañ-brtson-'grus (1648-1722). Its author founded the monastery of bLa-brañ in Amdo. The work is in two parts—the first covering 11 and the second 26 folios. The first part mentions events prior to A.D. 1027/28 and the second ending in events up to A.D. 1715/16. It is a highly systematic and authentic work and A. I. Vostrikov made extensive use of it throughout his own *Tibetan Historical Literature*.

2. The Re'u-mig of Sum-pa mkhan-po. We have already mentioned that while editing the book dPag-bsam lJon-bzañ in its Tibetan version, Sarat Chandra Das preferred not to include it in the printed text. The reasons for this are not known to us. But the situation remained that it was extremely difficult to obtain a copy of Sum-pa's Re'u-mig in its Tibetan original. Fortunately however, we are now in possession of a copy of the Tibetan original, thanks to the publication of Sum-pa's book in its entirety by the International Academy of Indian Culture, New Delhi, 1959.

S. C. Das himself published in the journal of our Society an English translation of Sum-pa's *Re'u-mig*, introducing it with a brief life-sketch of Sum-pa mkhan-po. Nevertheless, it is our misfortune that Das did not care to observe sufficient rigour in the matter. As a result of it, the translation itself has become more confusing than helpful for the modern scholars. It is no wonder that Vostrikov suggests that instead of revising Das' translation of the Re'u-mig, one should better retranslate the whole thing. We have ourselves compared Das' translation with the original Tibetan text of Sum-pa's *Re'u-mig*, and we have found howsoever bitter Vostrikov's comments may appear to us, we cannot but basically agree with him. That he had to take the Fire-Hare year of the 1st cycle as A.D. 1026 is of course easily understood, because following Csoma de koros this was the standard practice of his time. What we fail to understand, however, is the heap of other errors

committed by a Tibetologist of his stature in translating the brief tract. As Vostrikov comments :

"Even limiting himself to a translation of the actual tables only without the introductory and concluding parts, S. C. Das accomplished this task very negligently. Despite the fact that the original text correctly gives the names of the years every time they occur, S. C. Das found it possible to do away with them and was satisfied with his own conversion of these into the European calendar. Not only that the conversions made by him are not correct even from the general principle which he followed in this regard ; he has also digressed from these principles for no reasons whatsoever. Following Csoma de Koros and E. Schlagintweit, S. C. Das regarded the first year of the Tibetan era as 1026 instead of 1027 and therefore, as correctly shown by Prof. P. Pelliot, all the dates cited by S. C. Das should be advanced by one year for obtaining the true dates. But even without comparing the true dates with those mentioned by S. C. Das after conversion, P. Pelliot has pointed out a case when S. C. Das digressed from the actual date not by one but by two years. In fact, there are several such cases in the conversions made by S. C. Das. In particular, the events which he has dated to the years between 1225 and 1253 (yearwise) actually happened from 1227 to 1255. In the same way, the events marked 1269 and 1270 respectively actually took place in 1271 and 1272 etc. The events which, in the original texts, are shown to have taken place in the same year, have been ascribed by S. C. Das to different years, and vice versa. But the matter does not end at these chronological errors only. A considerable portion of the information available in the original text is totally omitted by S. C. Das. In certain cases, S. C. Das translates only half the sentence and omits the remaining part. What is stated in the original as a hypothesis or as the view of someone else, of the authenticity of which the author is not quite sure, appears, in the translation of S. C. Das, as a categorical statement of the author. Numerous references by the original authors to the views of other historians are almost invariably omitted by S. C. Das. Finally, in certain cases, even the very facts stated in the text have been distorted by S. C. Das beyond identification. Two names of the same person have been shown by S. C. Das as those of two different persons and, on the other hand, the names of two different persons have been turned into those of the same person etc. It is no use enumerating and rectifying all the defects of the translation of S. C. Das. It is simply necessary to make a fresh translation of the entire text of the chronological table of Sum-pa-mkhan-po. When the original text is available, it is better not to use at all the translation of S. C. Das as it lacks the necessary critical apparatus and does not identify the proper names included. Without the original text, on the other hand, it is risky to use this translation because it is full of errors.

"S. C. Das prefaced his translation of the chronological tables with a short biography of their author, Sum-pa-mkhan-po, without, in any way, specifying the sources on which this biography is based. As rightly remarked by Prof. P. Pelliot, S. C. Das errs in this biography

too. The date of birth of the author as given in this biography (in European calendar) is different from that given in the text of the chronological table. In his tables, the date of birth of Sum-pa-mkhan-po Ye-ses-dpal-'byor is given as 1702-1703 and in the biography, it is shown as 1702, whereas actually, it is 1704. This error can, however, be easily rectified as S. C. Das gives here the number of the cycle and the name of the year in Tibetan calendar—the Wood-Monkey year of the 12th cycle, corresponding to A.D. 1704. It is much more difficult to verify the remaining dates given in this biography as S. C. Das does not give the Tibetan names of the years. Nonetheless, some of these dates are certainly to be rectified—particularly the date of death of Sum-pa-mkhan-po Ye-ses-dpal-'byor. S. C. Das simply states that Sum-pa-mkhan-po died at the age of 73 whereas he actually died in 1788 (Earth-Monkey year of the 13th cycle), i.e. in the 85th year of his life. In 1782 (Water-Tiger year of the 13th cycle), he compiled his critical and bibliographical work *Sun-rab-rnam-dag-chu'i-dri-ma-sel-byed-nor-bu-ke-ta-ka*.¹²

It would be most tiring for us in the present lecture to illustrate the errors referred to by Vostrikov. But it remains an imperative need for contemporary Tibetan studies to prepare an academically acceptable retranslation of this exceedingly important document, adding annotations to the proper names mentioned by Sum-pa in the Chronological Table from the vast store of Tibetan historical literature.

3) The third document in my possession is a work recently published from Beijing (1982), a copy of which I have received by the kind courtesy of Dr. E. Gene Smith. The book bears the title *bsTan-rtsis kun-las-btus-pa*, which means "A compilation of chronology". Its author is mentioned as Tshe-tan zabs-druñ.

As for the content of the book what needs to be noted above all is that it is not at all intended to be the reproduction of one or more of the standard chronological tables of Tibet. On the contrary it intends to be the compilation of a new chronological table altogether, depending primarily upon a number of more famous Tibetan histories as well as biographies and other related works. Besides, this book shows a keen critical sense by way of reviewing the different opinions about the date of the same event expressed by many authorities. We may thus look at it as but an attempt at preparing a new chronological table based on the application of modern critical apparatus. From our point of view, therefore, the book is highly important.

At the same time, the book has for us a certain amount of humorous element. Thus for example, it mentions the view expressed by a certain authority called rDo-brag (p. 78). We got somewhat puzzled by the name because no famous Tibetan scholar bearing such a name is known to us. Eventually, however, we realised

that it was but a result to carry to an extreme excess the traditional Tibetan tendency of using foreign name in a literal Tibetan translation. The two components of the name, namely *rDo* and *Brag* respectively mean "Rock" and "Hill". The name thus stands for the famous European scholar Rockhill. Such a tendency, if admissible, one cannot help wondering how the Tibetan authors would refer to so many foreign names of European scholars, that have contributed to modern Tibetology.

I have mentioned this only to illustrate something humourous in the book. But this by no means affects the basic worth of the book itself. In the interest of understanding Tibetan chronology—and particularly from the viewpoint of its relevance for having a clearer idea of the dates of many events even in India, China, Mongolia and other neighbouring countries of Asia—its value is really very high.

One important reason for this may as well be briefly stated here. The *brTan-rtsis* literature in its standard form, as already said, gives us an account of important events of each year beginning from A.D. 1027/28 to A.D. 1926/27. But the importance or otherwise of an event, as viewed from the typical standpoint of Tibetan historiography, is judged from its relevance for Buddhism. However, from the year A.D. 1027/28 nothing really spectacular about Buddhism actually took place on the Indian soil, excepting perhaps Atīśa's going to Tibet from the Vikrameśīla vihāra. In Tibetan history, the importance of this event is undoubtedly highlighted as far as possible. From the point of view of Indian history, however, Buddhism was already declining in India since the eleventh century until it became virtually extinct. This left the authors of the standard *brTan-rtsis* literature with extremely limited scope to mention Indian events in their Chronological Tables. In other words the most glorious period of Buddhism in India from the time of king Bindusara to that of the Pala kings of Eastern India took place before the Tibetans accepted the sexagenary cycle as the basis of their official calendar.

But all this does not mean that the period prior to A.D. 1027/28, was unknown to the Tibetans. Though falling outside the strict scope of the standard *brTan-rtsis* literature some of the Tibetan historians—inclusive of those with very profound knowledge of Indian texts often lost to Indian historians themselves—were keen on nothing what happened in Indian history from the time of the Buddha himself. What amazes us even to-day is their attempt to determine the dates of such events, and this according to their typical later mode of naming a year in terms of the twelve animals and five elements. For this purpose they apparently explored various

possibilities, like translating Indian dates in terms of their own chronological terminology, back calculating from an established date of Tibetan chronology to the date of Indian events by taking note of the number of years that elapsed between the two, taking recourse to Chinese chronology, and so on.

But all these are not to be found in the *brTan-rtsis* literature in its restricted sense. These are rather to be found in other types of Tibetan historical literature, the most prominent of which were the *chos-byuñ* or the Histories of Buddhism. Apparently, those who prepared the compilation of chronology published from Beijing, 1982, realised this point, may be in their own way. That seems to account for the fact that of the very large number of Tibetan texts on which they depended on for preparing this modern version of chronology, only the two *brTan-rtsis*-s we have mentioned before are taken note of. The other works they have depended on are mostly the *chos-byuñ*, the biographies of important personalities, travel notes of Tibetan pilgrims to India, etc. etc. That has enabled them to cover with considerable success the problem of dating important Indian, (and also Chinese, and Mongolian events) from the early period to A.D. 1027/28.

It will be premature for me to try to present here the results I am myself reaching on the basis of an analysis mainly of the three documents I have mentioned above. I should confess that I have started this work somewhat recently, though it is already proving highly exciting specially for the purpose of precise dating of Indian events and this as connected with Tibetan and Chinese ones.

Let me try to be clearer about my main point. With its over-riding Buddhist bias, Tibetan history inclusive of the Chronological Tables is naturally full of Indian references. There is also attempt in this to correlate Tibetan and Chinese events with those of India. It is not my claim that the dates mentioned in the Tibetan sources are infallible. In fact, the Tibetan scholars are themselves often found to debate over many a dating.

At the present stage of my research, therefore, I have deliberately preferred not to mention any specific event and its dating, specially pertaining to Indian history. I have the feeling that the dating of such events awaits to be more decisively determined only by collating the Indian, Chinese and Tibetan sources. That is why, Tibetan Chronologies are in need of very extensive investigation and critical annotations. The main purpose of the present paper is only to draw the attention of our scholars to the fact that the Tibetan Chronologies are relevant not merely for the restricted purpose of understanding Tibetan history ; these have also a good deal of importance in the matter of coming to greater precision about

the datings of Indian and Chinese events. This is a point that seems to remain inadequately emphasised in the writings of many modern historians so far. I do hope that I shall be able to report more on this work with the further progress of my investigation and annotations.

Thanking you all, I should prefer to end the present paper here.

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THE DIVINE DOCTORS AŚVINS AND THE SOMA-DRINK

UMA CHAKRAVORTY

The twin divine physicians, the Aśvins, hold an important position in the Vedic pantheon. About fifty-one hymns have been dedicated to these twin deities. In the *RV* the Aśvins hold the fourth position following Indra, Agni and Soma, from the point of view of the total number hymns dedicated to them. In spite of their important position the identity of these twin deities is still a puzzle to indologists as it was even before the time of Yāska. Yāska¹ has recorded four different views of his predecessors on the origin of the Aśvins. The first three of them identify the Aśvins with different natural phenomena like heaven and earth, day and night and the sun and the moon. The upholders of the fourth opinion, the then historical school, propagated the euhemeristic theory by identifying the Aśvins with two pious earthly kings. Yāska's opinion on the identity of these two deities is ; "their time is after midnight, which in consequence is an impediment to the appearance of light. The part in the dark is the atmosphere, and the part in the light is the sun".² So far around twenty-five opinions have been given on the identity of the Aśvins by the scholars of the East and West. The majority of these have identified the twin deities with different phenomena of earth, atmosphere and sky. K. F. Geldner,³ however, has opined that they have been succouring Indian saints. G. L. Chandravarkar⁴ held that they were historical figures of Indo-European origin. He establishes his view by saying that "When the conception of a deity originates from the appearance of a happening in nature its identification with the happening and possibly with no other, remains permanent and is handed down from generation to generation in much the same form. But when the identification is based on imagination, it is probably that more conception than one may arise". Few other Vedic deities have perplexed the scholars of all time as these twin deities.

Another point of controversy which forms the subject-matter of this article is the Aśvins' right to the Soma-libation. That the Aśvins had been deprived of the right to the Soma-libation and that later they regained that right has been recorded for the first time in the *TS*⁵ and then in later literature.

A review of the opinions expressed by the scholars on the Aśvins' right to Soma-libation appears not to be out of context in this connection.

Alfred Hillebrandt thinks that the Aryan Indians offered libations of 'Soma' or '*gharma*' according to their respective family tradition.⁶

A. B. Keith observes, "The Aśvins are particularly connected with honey ; they bestrew the sacrifice and worshipper with a honey whip, their car is honey-hued and honey-bearing. They are honey-handed and give the bee its honey. In comparison they are less vitally connected with Soma, though they are said to drink it at each pressing and in some circles they were probably not at first reckoned among the Soma-drinking gods, though for this proofs are rather inadequate".⁷ Vaclav Machek opines, "With the character of the Aśvins as the youth not yet grown up is no doubt connected that their drink is the *madhu* and not the Soma. It is impossible to look for another reason than analogy of real life : strong drink for heroes and not for boys and young men. Of this simple thing the Indian ritualists made complicated fancies".⁸ Reinhold E. G. Müller sees no confusion in the offering of Soma-libation to the Aśvins, "Damit sind die Aśvins auch hier gültig nach den vedischen Anschauungen in den Kreis der götter angefügt, und zwar auch deswegen, weil sie ihnen Aufzungen besonders zum Soma-genuß eingeladen werden (durchaus nicht seltener als andere götter)".⁹ K. P. Jog observes, "*Kat. S. 13.6 ; M.S. 4.6.2. and T.S. 2.1.10.1* de-recognises them among the gods when they refer to the Aśvins not having a claim to Soma-offering as the definitive (*nirdhāraṇārthe*) genitive *devānām asomapā or asomapau* shows. Such a lesser position of the Aśvins amongst the gods is further indicated from their mention as *devānām-anuīāvarau* 'posthumous' (?) among the gods at *Kap. S. 46.6 ; Kāt. S. 13.7 ; 30.3 ; and M.S. 2, 5, 6*. This is probably to show that in certain parts of ancient India—or rather, in some of the Vedic schools—the Aśvins were not acceptable to the priestly hierarchy as excellent gods".¹⁰

The R̥gvedic singers, however, generously offer Soma-libation to the Aśvins. For about fifty times they have been offered Soma in fifty-one hymns dedicated to them. Along with other words of invocation in which they had been offered Soma-libation five times they had been invoked with the prayer, '*pibatam somyam madhu*',¹¹ thrice with, '*somam pibatam aśvinā*',¹² twice with '*pūtam somam rāvr̥dhā*',¹³ once with, '*pibatam somam madhumantam aśvinā*'¹⁴ and once with, '*pibātha it madhunah somyasya*'.¹⁵

A deliberation on the Aśvins without referring to their close relation with '*madhu*' is simply impossible. Of the many epithets of the Aśvins that are found in the *RV* a few are. "*madhuvarṇā*" (VIII. 26.6) 'honey-coloured', "*madhupau*" (I. 180.2) 'drinkers of honey', "*madhupātāmā*" (VIII. 22.17) 'the best drinkers of honey', "*mādhvī*" (VII. 67.4) 'honeyed'. The Aśvins obtained the madhu-lore from the sage Dadhyañc, the son of Atharvan (cf. *RV* I. 117.12). He imparted this knowledge to the Aśvins by means of a horse's head. The story goes thus : Indra, pleased with Dadhyañc, bestowed on him

the 'madhu-lore' with the warning that he would chop Dadhyañc's head if this lore was divulged to anyone else. The Aśvins put a horse's head on Dadhyañc's neck and induced him to relate the 'Madhu-lore' to them. Indra becoming aware of the fact took off Dadhyañc's head (i.e. the horse's head). Then the Aśvins replaced on his neck his real head.¹⁶ The Aśvins had been the sole possessors of the 'Madhu-lore' all through the Vedic age. What actually the term 'Madhu-lore' ('*madhu-vidyā*') signified is not known. It is identical with '*pravargya-vidvā*' useful at the head of the sacrifice. The 'madhu' narrated in the *Bṛhad Āraṇyaka Upaniṣad*¹⁷ describes the all-pervading nature of the 'Soul'. In the *RV* the Aśvins are invoked with '*aśvinā pibataṃ 'madhu'*',¹⁸ '*madhvah pibataṃ madhu-pebhiḥ āsabhīḥ*',¹⁹ '*madhvā vajñam mimikṣataṃ*'²⁰ '*prñktaṃ havīmṣi madhunā*',²¹ '*ime vām nidhayo madhūnam*'.²² The chariot of the Aśvins is full of honey.²³ It carries a leather bag full of honey from which they have been asked to drink.²⁴ They are so full of honey that the black bees collect honey from them.²⁵ The Aśvins pour a hundred jars of *surā* (wine) from the hoofs of their horses (*RV* I. 116.7). *RV* I. 117.6 narrates the same story with the difference that in place of *surā* it uses the word *madhu*.

A scrutiny of the R̥gvedic hymns leads the conclusion that the R̥gvedic singers did not make any discrimination while offering Soma and *madhu*-libation to the Aśvins. Equal was the passion of the Aśvins for 'Soma' and 'madhu'. Whether 'mahdu' and 'Soma' were two different drinks or were identical is yet to be established. Mircea Eliade²⁶ says, "madhu the sweet pressed juice is known as Soma. Cognates to Madhu (GK. me'thy/MEOU/; old Slavonic medu; Icelandic mjöd/majoär/; Anglo-Saxon moedu) suggest a kind of honey made of celestial origin to which religious value of intoxication and generative power were attributed". In the *RV* the words 'Soma' and 'madhu' are used in such a manner (Cf. *pibataṃ somyaṃ madhu* VII. 74.2, etc.) that very often it becomes difficult to distinguish one from the other. In many places they are used synonymously.

In the *TS* we learn for the first time that the Aśvins had been denied the right to the Soma-drink on the ground that they were doctors and that they had mixed much among men and have become impious; the Aśvins, however, established themselves to that much coveted right by dint of their own merit.²⁷

A few instances illustrating the Aśvins as divine doctors and friends of their devotees in distress are quoted below from the *RV*, in support of the allegations brought against them. The first and the tenth books i.e. chronologically the later books of the *RV*, depict the succouring nature of the Aśvins in more concrete manner than the other books. Names of about a hundred prote'ge's of the Aśvins

are found in the RV. Some of them had been favoured with gifts, others with protection in distress and still others with medical aid.

Pedu²⁸ probably tops the list of those who were favoured with the unique gifts. The Aśvins gave him an excellent white horse, the first of its type. Dīrghaśravas²⁹ and Manu³⁰ were assisted in the cultivation of land—the first was favoured with showers of rain and for the latter they ploughed the land. Kaksīvat³¹ who was blinded by the darkness of ignorance was enlightened with knowledge. Atri³² who was thrown into fire by the demons was rescued by the twin deities. Bhujyu³³ who went to fight with his enemies was stranded in mid-ocean; the Aśvins came to his rescue. The twin succouring deities saved Vandana³⁴ and Rebha³⁵ who had been thrown into ditches by demons. Vimada's wife³⁶ was carried off by some other kings, the Aśvins brought her back to her husband. The divine doctors helped a good number of devotees by granting them medical aid. They restored eye-sight to the blind Kanva,³⁷ Rjṛāśva³⁸ and Kavi.³⁹ The blind and lame Śroṇa⁴⁰ was cured of infirmities, Nārśada's⁴¹ hearing was restored, Śavu's old cow⁴² which had stopped breeding regained the power to breed by the skill of the Aśvins. The old Cyavana⁴³ was rejuvenated and Śyāva⁴⁴ was cured of leprosy.

The Aśvins were good surgeons. They operated on the leg of Viśpalā,⁴⁵ the queen of king Khela, reset her bones and fitted her with an iron leg. Ghoṣā⁴⁶ a spinster had been suffering from leprosy and getting old in her parents' home. The Aśvins softened by her prayer saved her. She recovered perfect health, regained youth and charm and obtained the much cherished husband and home. The Aśvins were expert gynaecologists.⁴⁷ They helped at the childbirth of Kamadvū,⁴⁸ Vimada's wife and also Saptavadhri's wife.⁴⁹ Of about a hundred prote'ge's of the Aśvins, only the more prominent are mentioned here. The RV does not give any detailed description of these useful and beneficial services rendered by the Aśvins to their worshippers. They are just mentioned one after the other, especially, in the first book. The twin succouring deities granted their wards concrete help by personally coming to them in their distress and not by blessing them from their heavenly home which, however, would have been more god-like.

Gradually there arose in society a taboo against doctors, and the distance between men and gods became wider. The succouring deities Aśvins who were doctors and who did not maintain that distance from mortals were accordingly denied the right to the Soma-libation. In the *Maitrāyaṇī Samhitā*⁵⁰ we read that the sacrifice became headless; the gods approached the Aśvins, the divine doctors and surgeons, for joining the head of the sacrifice. They complied with their request on condition that their right to the Soma-libation be restored.

The Aśvins were given back their right, only after they had been purified by the *bahiṣpavamāna* rite, for, doctors were considered impure. The *TS*⁵¹ narrates the same story and says : *apūtā va imau manuṣyacarau bhiṣajāv iti tasmād brāhmaṇena bheṣaiam na kārvaṃ*. 'Unclean are these doctors moving among men, therefore, a brahmin should not practise medicine'.

The *Śatapatha Brāhmaṇa*⁵² in course of narrating the story of Sukanvā and Cvavana states that the gods had excluded the Aśvins from the sacrifice because, as doctors, they were wont to mix much among men. The Aśvins, however, reinstated themselves in their status of Adhvaryu-priests among the gods and acquired their right to Soma-libation.

Later, the *Mahābhārata* narrates that the Aśvins rejuvenated the old and infirm Cyavana. Śaryāti who gave his daughter Sukanvā in marriage to the old Cyavana hearing the happy news came to congratulate his son-in-law on his rejuvenation. At Cvavana's suggestion Śaryāti performed a sacrifice in which Cyavana officiated as the priest. Cyavana, who in his gratefulness already promised the divine doctors to establish them in their right to Soma-libation, offered the same to them. Indra protested, and was about to hurl his thunder-bolt at Cyavana, who in his turn paralysed Indra's hand ; the Soma-libation was offered to the Aśvins. Moreover, Cyavana created the demon 'Mada' in order to kill Indra. Indra whose hand was already paralysed, became nervous, gave way and acknowledged the Aśvins' right to Soma-libation. Indra's grounds for protests against the Aśvins receiving Soma-libation were—first, they had been doctors ; secondly, as doctors they wandered much among men assuming different forms.⁵³ Sukumari Bhattacharji interprets this episode : "Decoding the language of mythology we may say that the cult of the Aśvins won and fought against the opposition of the prevalent Indra cult".⁵⁴

The succouring nature of the Aśvins and their service as doctors are more prominently depicted in the first and the tenth books i.e. the later books of the *RV*. The hymns of the earlier books, on the other hand, depict them essentially as early morning deities, the associates of Uṣas and Agni ; their succouring functions are, of course, mentioned from time to time. A few hymns of the later books (cf. 112th, 116th, 117th, 118th and 119th of the first book and the 39th of the tenth book) repeatedly mention the manifold aids rendered by the divine twins to their prote'gés. Their identity as doctors, as helpers of their devotees in distress became very evident. Apprehensions may arise that around this period the human Aśvins had been deified because of their outstanding services to their devotees.

The Vedic twin gods, the Aśvins, fall in the Indo-European

Dioscouri group ; their deification must have taken place in their Indo-European home. The Greek counterpart of the Aśvins are Dioscouri who are also popular for their benevolent deeds. Their association with their sister Helen resembles the Aśvins' association with Sūryā. In Roman Castor and Pollux the saviours of sailors at sea, one sees the image of the Aśvins. The Indo-Iranian branch apparently missed these divine twins. Stig Wikander⁵⁵ has, however, found them in the demon Naōñhaithya and Atar the son of Ahura Mazda. Donald Ward⁵⁶ observes at the conclusion of his book on the Divine Twins : "Thus the Divine Twins, the sons of the Sky-God, brothers of Sunmaiden, were the well-defined deities of the Proto-Indo-European pantheon and were carried by the various people to their new home-lands where the religious complex changed remarkably well through the centuries in the new environment".

Regarding the Aśvins being deprived of Soma-libation and excluded from circle of gods, we observe the reflections of cult-conflict, viz., between the cults of Indra and the Aśvins. The hymns of the RV, specially, those of later books, were sung in eulogy of these twin deities. The devotees sang in multifarious ways the benevolent activities of these succouring deities—as men's very present helps in trouble, as doctors, surgeons, gynaecologists, so on and so forth. But, the result of this eulogy was rather adverse, as in society there arose a taboo against the doctors and the gods assumed an Olympian attitude. The Aśvins who did not care to abide by these prohibitions were consequently excluded from the Vedic pantheon and were deprived of the Soma-libation as recorded in the TS and also in later literature. But, as we have seen, this was only a passing phase. Soon the Aśvins had to be recognised as Adhvaryu-priests among the gods and given back their right to the Soma-libation, as their services as doctors became indispensable because they joined the head of the sacrifice, which had been severed (Cf. TS VI. 4.9). So, the loss of right to the Soma-libation of the divine doctors Aśvins of the Indian mythology is only a temporary occurrence caused by the conflicts between two cults.

NOTES AND REFERENCES

1. *tat kāu aśvinau / dyāvāprthivyaū ity eke / ahorātrāu ity eke / sūryā-candramasāu ity eke / rājānau puṇyakṛtāu ity āitihāsikāh /*
The Nirukta and Nighaṇṭu XII. 1. ed. Laksman Sarup, Matilal Baranasi Dass, 1967, p. 206.
2. *tayoḥ kāla ūrdhyam ardharātrāt prakāśtibhāvasy ānuviṣṭambham / anu-tamo bhāgo hi madhyamo jyotirbhāga ādityah /* Op.cit., XII.1., p. 206.
3. See R. Pischel and K. F. Geldner, *Vedische Studien*, V. II. Stuttgart, 1897, p. 31.

4. G. L. Chandravarkar, "Aśvins as historical figures", *Journal of the University of Bombay*, May, 1934, vol. III, Part VI, pp. 63-87.
5. Cf. *āśvinam dhūmratalāmam ālabheta yo durbrahmaṇaṇ somam pipāsed āśvinau vai devānām asomapāv āstāṇi tau paścā somapithaṇ prāpnu-tām*.
TS=Taittirīya Saṃhitā, ed. Damodar Satvalekar, 1945, II.1.10., pp. 72-3.
6. "neben dem Soma-trank erhalten sie den Gharma, Verzugsweise aber rionig und Surā Ich habe keinen Zweifel, dass es sich um die Einwirkungen verschiedenen Kulturformen handelt." Alfred Hillebrandt, *vedische Mythologie*, V. III, Breslau, 1902, p. 386.
7. A. B. Keith. *The Religion and Philosophy of the Veda and Upaniṣads*, Harvard Oriental series, v. 31, 1925, reprint, Delhi, Motilal Baranasi-dass, 1970, p. 114.
8. Vaclav Machek, "Origin of the Asvins", *Archiv Orientalni*, vol. XV, pp. 413-9.
9. Reinhold F. G. Müller, "Die vedische Götterärzte", *Archiv Orientalni*, Vol. 28, 1966, pp. 399-413.
10. K. P. Jog, "The Aśvins of the Rgveda and their traces in later litera-ture" Part II, p. 5. *Journal of the Bombay University*, Vol. 34, 1965. (One observes the similarity of thought between Alfred Hillebrandt and K. P. Jog).
11. RV VII. 74.2; VIII. 5.11; 8.1; 10.4; 35.22.
12. RV VIII. 35.1, 2, 3.
13. RV I. 47.3, 5.
14. RV VIII. 87.4.
15. RV IV. 44.4.
16. Cf. *Brhaddevatā* III. 18-23, ed. A. A. Macdonell, Harvard Oriental Series, Vol. VI 1904; (rpt. Motilal Baranasisdass, 1965), pp. 83-84.
17. Cf. *Brhad Āraṇyaka Upaniṣad*, II.5. Udbodhan. Karyalaya, Calcutta, (fifth edition), pp. 173-188.
18. RV I. 15.11.
19. RV I. 34.10.
20. RV I. 47.4.
21. RV II. 37.5.
22. RV III. 58.5.
23. Cf. RV I. 34.2.
24. Cf. RV VIII. 5.19.
25. Cf. RV X. 40.6.
26. Mircea Eliade, *From Primitive to Zen*, London, 1967, pp. 247-8.
G. C. Jhala also thinks that Soma and madhu are identical. See G. C. Jhala. *The Aśvins in the Rgveda and other Indological Essays*, Munshiram Manoharlal Publishers, 1978. pp. 47-49.
27. Cf. TS VI. 4.9. *Yajñasya śiro 'chidyata te devā āśvināv abruvan bhiṣajau vai staḥ idam yajñasya śiraḥ pratidhattam iti tāv abrūtām varam vṛṇya-vahai graha eva nāv atrāpi grhyatām iti tābhyām etam āśvinam agrhaṇa tato vai yajñasya śiraḥ pratyadhattaṇ yad asviṇo grhyate yajñasya niṣkṛtyai tau devā abruvan apūtau vā imau manuṣyacarau bhiṣajāv iti . . . Op. cit., p. 322.*
28. Cf. RV I. 116.6; 117.9; 118.9; 119.10; X. 39.10.

29. Cf. *RV* I. 112.11.
30. Cf. *RV* VIII. 22.6.
31. Cf. *RV* I. 112.11; 116.7.
32. Cf. *RV* I. 112.7; 16; 116.8; 117.3; 118.7; 119.6; 180.4; V. 78.4
33. Cf. *RV* I. 112.6; 20; 116.3, 5; 117.14, 15; 118.6; 119.4, 8; 158.3; 180.5; 182.5, 6, 7; VI. 62.6; VII. 68.7; VII. 69.7; VIII. 5.22; X. 39.4; 40.7. In this connection one remembers the Greek Kastor and Polydeuces and Castor and Pollux the saviours of sailors at sea, or the Roman mythology.
34. Cf. *RV* I. 116.11; 117.5; 118.6; 119.6.
35. Cf. *RV* I. 112.5; 116.24; 117.4, 12; 118.6; 119.6, X. 39.7.
36. Cf. *RV* I. 112.19; 116.1; 117.20; X. 39.7; 65.12.
37. Cf. *RV* I. 47.5; 117.8; 118.7.
38. Cf. *RV* I. 116.16; 117.17, 18.
39. Cf. *RV* I. 116.14.
40. Cf. *RV* I. 112.8.
41. Cf. *RV* I. 117.8.
42. Cf. *RV* I. 112.16; 116.22; 117.20; 118.8; 119.6; VI. 62.7; VII. 68.8; VIII. 8.20 X. 39.13; 40.8.
43. Cf. *RV* I. 116.10; 117.13; 118.6; X. 39.4
44. Cf. *RV* I. 117.8, 24.
45. Cf. *RV* I. 112.10; 116.15; 117.11; 118.8; 182.1; X. 39.8.
46. Cf. *RV* I. 117.7; X. 39; X. 40.
47. Cf. *RV* X. 184.3, X. 65.12.
48. Cf. *RV* X. 24.4, 5, X. 65.12. (See Geldner's introductory note to his translation of this hymn. K. F. Geldner, *Der Rig Veda* IV, Harvard Oriental Series, 36, 1953).
49. Cf. *RV* V. 78.7, 8, 9.
50. *etau tarhi devānāṃ bhiṣajā āstām āsvinā asomapau tā upādhāvan yathā bhiṣajam upadhāvanty evam idaṃ yajñasya śraṣṭi pratidhattam iti tāv abrūtām bhāgo na asu iti vṛṇāthām ity abruvans ta abrūtām grahaṇi nau grhṇantu somapītham āsnāvahā iti tadvā āsvināu pratyadhattām tasmād āsvinibhir abhistuvanty āsvināu hi pratyadhattam tau vai bahis-pavamānena pāvayitvā tābhyām pūtābhyām yajñiṣābhyām bhūtābhyām graham agrhṇan . . .*
Maitrāyaṇī Saṃhitā, vols. III & IV, ed. Dr. Leopold Von Schroeder, Leipzig 1923 (Neudruck) IV. 6.2. pp. 79-80.
51. TS VI. 4.9.
 G. S. Ghurye observes the traces of Hayagrīva-incarnation of Viṣṇu of later age in this yajurvedic story of the sacrifice becoming headless. *Vedic Age*, Popular Prakashan, Bombay, 1979, p. 110.
52. *Tau ha ūcatuḥ upa nau hvayadhvam iti te ha devā ūcur na vām upa-hvayīṣyāmahe bahu manuṣyeṣu samsṛṣtam ācariṣaṇi bhiṣajyantāu iti tau ha ūcatuḥ viśiṣṇā iti upa nu nau hvayadhvam atha vo vakṣyāvahā iti tathā iti tāv upahvayanta tābhyām etam āsvinaṃ graham agrhṇan tāv adhvaryū yajñasya abhavatam.*
Satapatha Brāhmaṇa, IV. I.5. 14-15, Kashi Sanskrit Series, 127, 2nd edition (1st edition 1913), p. 330.
53. See the *Mahābhārata* ed. Vishnu S. Sukthankar, Bhandarkar Oriental Research Institute, Poona, 1942. III. 123-5.
54. *The Indian Theogony*, Cambridge, 1970, p. 239.

55. *Myth and Law Among the Indo-Europeans*, ed. Jaan Puhvel. Donald Ward, "Separate Functions of the Indo-European Divine Twins" University of California Press, Berkeley & Los Angeles, 1970, p. 195.
56. Donald Ward, *The Divine Twins*, University of California Press, Berkeley and Los Angeles, 1968, p. 91.

DEŚĪ VOCABLES IN THE RĀVANAVAHA

SUCHITRA (ROY) ACHARYA

In course of my study of Setubandha I have come across some words which do not agree with their Skt. Chāyā. Some of them are not even recognised by Hc. in his Deśināmamālā. At the beginning of the work, Hc. explains what he means by deśī word.

je Lakkhaṇa ṇa siddhā ṇa pasiddhā sakkayāhihāṇesu/
ṇa Ya ga'ṇalakkhaṇāsattisambhavā te iha ṇibuddhā//

1.3 Deśin.

te anyairdeśīṣu parigrhītā apyasmābhirna nibaddhāḥ/
ye ca satyānapi prakṛtipratyayādi - Vibhāgena siddhau
saṃskṛtābhidhāna-Koṣeṣu na prasiddhāste apyatra nibaddhāḥ/

1.3 Ṭikā.

desavisesapasiddhī bhāṇamāṇā aṇantayā hunti/
tamhā aṇāipāipayaṭṭa bhāsovisesao deśī//

1.4 Deśin.

According to him, deśī words are not derived from Sanskrit. Though they are derived from Sanskrit, are not found in that sense in the Sanskrit Lexicons. The words which have changed their meaning in Pkt. for literal use and which are used by standard Prākṛt from remote past, are recognised as deśī by Hc.

Following the definitions of Hc. We can say that Setubandha has some deśī words which can conform the definition of Hc. In order to adhere to the time limit of Oriental Conference, I have to concise my paper. So all such words in the edition of Basak are not discussed in this paper.

The words chosen by me are referred to different books in different times. As no happy etymological explanation of the words discussed by me is available, I have made an attempt only to throw a light on the etymological development of them before the scholars to judge and to suggest some more new lights.

I have consulted the edition of Basak which slightly differs from the others. The English translations are taken from K. K. Handiqui. The words are discussed in the paper alphabetically.

atthekka(=ākasmika) 12.46

The word stands in the first line of the following verse :

Pkt. Text :

āucchamāṇa-gahiā suammi atthekka-samara-saṇṇā-paḍahe/
juai-muhāhi piāṇaṃ ṇinti amukka-siḍhila-tṭhiā aharotṭhā//

12.46

Skt. Chāyā :

āpṛcchya māna-grhītāḥ śrute ākāsmika-samara-sañjā-pāṭahe/
yuvati-mukhāt priyāṇām niryānti amukta-śithila-sthitāḥ
adharauşṭhāḥ//

Eng. Translation : When the sudden beat of the drum, a call to arms, was heard, the lips of the lovers, held fast by the young women as they took leave of them, parted from their mouth, slackening even though unreleased.

The word *atthekka* occurs in the verse 13.49 also. It has got multifarious kinds of variants, such as, *atthakka* (= *akasmāt*) 11.24 ; *atthakki* (= *akasmāt*) 11.100 etc.

The Sanskrit word for *atthekka* is given as *ākasmika* in the edition of Basak. The word *ākasmika* only conveys the sense of the Pkt. word. However, so far, happy etymology of *atthekka* is not known.

Hc. in his *Deśin* (1.14) mentions *atthakka* as a *deśī* word meaning *anavasaraḥ* 'ill-timedness'. The same word is also given in his Pkt. grammar (2. 174) under 'goṇādayaḥ' with a meaning 'akāṇḍa' which is equivalent to *ākasmika* of the Skt. rendering of the same word.

The etymology of *atthekka* can be traced from a Sanskrit word *atarkya* whose meaning as given by Monier Williams (Page-12) is 'incomprehensible, surpassing thought or reasoning' etc. The meaning *ākasmika* is probably connected remotely with the idea that which happens surprisingly, happens suddenly. So the secondary, meaning is given by the commentator as also corroborated by Hc. However the formation of the word can be given below.

atarkya

= * *atharkya* (by spontaneous aspiration in the second syllable.)

= * *atthakka* (accept in the initial syllable causes the doubling in the second syllable and assimilation occurs in the final syllable.)

or * *atthaikka* (openthetic i due to y)

= *atthekka*

In the *Pāiasaddamahāṇṇavo* (Page 48) we find the word as : *atthakka na (de) 1. akāṇḍa, akasmāt.*

°upphittha° (= °udvigna°) 11.39

The above-cited form is found in the second line of the verse given below.

Pkt. Text :

pecchanti a sa'i-sañthia-vaṇa-visamvaia-thaṇa-ṇisaṇṇa-
kara-alaṃ/
dahavaṇāgama-sañkia-pada-saddupphittha-loṇaṇaṃ janaka-
suṇṇa//
11.39

Skt. Chāyā :

prekṣante ca sadā-saṁsthita-vadana-visaṁvāḍita-stana-
ṇisaṇṇa-kara-talāṃ/
daśavadanāgama-saṅkita-pada-śavdodvigna-locaṇaṁ janaka-
sutāṃ//

Variant : N. S. Edition, Pkt. *uppittha* for Skt. *utpitsa*. Both the words differ from the edition of Basak.

Eng. Translation : There they saw *sītā*, with her eyes terror-stricken at the sound of their foot steps making her fear that Rāvaṇa might have come, while her hands lay on her bosom, having slipped from the face that had always rested on them.

As regards the above text of the word we find slight variation in the edition of the Nirṇaya Sāgara Press (Bombay). The latter presents it as *Saduppittha*. The text that we find in the edition of Bombay appears to be slightly incorrect. This is owing to the fact that the word *śabda*, which normally develops into *sadda* in Pkt. under no circumstance can develop into *sada*, which we find in the Bombay edition. In the above cited text of Basak we find *pph* in the third syllable which is represented as *pp* in the Bombay edition. To us the correct text appears to be *saddurpittha*.

In the edition of Basak we find the Skt. rendering of the word as *śabdodvigna*. The Bombay edition presents the same as *śabdodpitsa*. It may be readily stated that *uppittha* can never go back to Skt. *udvigna*. The word *utpitsa* of the Bombay edition is a strange word which is not to be found in the authentic dictionaries (Monier Williams, Apte etc). There is one word *utpitsu* in Skt., but the same cannot be related with the word that we find in our text. Further, the same cannot be presumed to be the source of our word *uppittha* as the latter cannot be directly obtained from the former without violating the normal rules of transformation of Skt. words into Pkt. According to our surmise the word *uppittha* comes from Skt. *uparistha* (Monier Williams, P. 205). Here owing to the working of accent there has happened syncopation in the second syllable. This has reduced the form to *uparistha* leading the latter ultimately to *uppittha* (referred also in the Pāiasaddamahāṇavo, p. 164, as

deśi bearing the sense *trasta*, *bhītaḥ*) in Pkt., which we actually find in the text.

It should be pointed out here that Skt. *upari* very frequently appears as *uppi* in Pkt. which has been noted by Pischel too in his *grammatik* (vide section 148). This indicates the correctness of our assumption.

Here it deserves mention that from the standpoint of meaning too our surmised word *uparistha* does not appear incongruous. Because when one is struck with consternation he raises his eyes upwards which points to the man's total bewilderment. It ultimately conveys the sense that is indicated by the word *udvigna*. At the beginning of my discussion I have referred the previous word *sadda* to clear myself.

Hc. in his *Deśin*. (1.129) mentions the word *uppittham* which bears almost the same sense (*trastam*, frightened, *kupitaṃ*, angry) of *uppittha* of *Rāvaṇavaha*.

runda° (= *vṛhad*°) 5.88

The aforesaid word occurs in the first line of the following verse.

Pkt. Text :

rundāvatta-paholira-veāpaḍiekkamekka-bhiṇṇa-mahiharaṃ/
ṇaha-arū-vilagga-vevira-dhūma-laāvisama-laṅghia-disā-ālaṃ//
5.88

Skt. Chāyā :

vṛhadāvarta-praghūrṇanaśīla-vegāpatitaikaika-bhinna-
mahidharam/
nabhas-taru-vilagna-vepanaśīla-dhūma-latā-viśama-laṅghita-
dig-jālam//

Variant : N. S. Edition, *sthūlāvarta* for *vṛhadāvarta*.

Eng. Translation : The mountains, spinning in the vast whirlpools, were dashed against each other, and crumbled; and the regions were covered here and there by the quivering creeper-like smoke ascending the tree that was the sky.

In the *Deśin* (VII.14) of Hc. we get the word *runda* for *vṛhad* (VII. 14) bearing the sense of *vipulaḥ*, wide, extensive *mukharaḥ* talkative. In the N. S. edition we get the Skt. form *sthūlāvarta* for Pkt. *rundāvatta*. *runda* is a deśi vocable having no etymological connection with *vṛhad*.

Etymologically *runda* may be explained thus : The Skt. word *rundra* (Monier Williams, P. 884) having the sense of rich might be at the basis of the Pkt. form *runda*. By assimilation *rundra* becomes *runda*.

Secondly, *rudra* which bears the sense of great, large might have contributed to the origin of *runda*. Here nasalisation spontaneously develops in the second syllable of the word, causing the change of the form into *runda* which we find in the text.

The Skt. word *rundra* might be the result of spontaneous nasalisation of *rudra* (cf. *vṛścika* > *vucchia* > *vicchua* > *viñchua* ; *vakra* > *vañka*). Both the words are referred by Monier Williams.

Turner refers this *rudra* in his dictionary (P. 623) : Pk. *rudda* ep. of Agni and other gods, terrible.

Pāiasaddamahannaṇavo (P. 714) mentions this *rudra* as deśi word giving their meaning *vipula* and *pracura*.

°Visaḍhā (=viśirṇāḥ) 6.66

The above mentioned word stands in the second line of the following verse :

Pkt. Text :

addhe addha-pphuḍiā addhe addha-kaḍaukkha a-silā-veḍhā/
pavaa-bhuāhaa-visaḍhā addhe addha-siharā paḍanti
mahiharā//
6.66

Skt. Chāyā :

ardhe ardha-sphuṭitāḥ ardhe kaṭakotkhāta-śilā-veṣṭāḥ/
plavaga-bhujāhata-viśirṇāḥ ardhe ardha-śikharāḥ patanti
mahīdharāḥ//

Eng. Translation : Some of the mountains tumbled down, rent in the middle, some with the encircling rocks dislodged from half of the slopes, and others crumbling under the blows of the apes, with only half of the peaks left.

The Pkt. word °visaḍhā is Sanskritised as °viśirṇāḥ in the Chāyā provided by Basak. This *visaḍhā* does not come from Skt. *viśirṇāḥ*. *viśirṇāḥ* originates from the root *śr* which can never be the origin of *visaḍhā*. *visaḍhā* may originate from the root *śat* bearing the sense, 'to be sick', 'to be weary or dejected', 'to be dissolved', 'to be pierced', 'to divide' (Monier Williams, page 1048). The root *śat* has affinity with the root *śr* from the standpoint of meaning. The Skt. root *śr* bears the sense, 'to tear', 'to destroy'. The development of *visaḍhā* is thus : The root *śat* is prefixed with *vi*. Then participial suffix *ta* is added with *vi-śat*. The participial suffix *ta* leaves only *a* *vi-śat* + *a* becomes *viśada* (Pischel § 198 P. 170). Palatal *ś* becomes *s* (Pischel § 227 P. 193). By aspiration *viśada* becomes *visaḍha* (cf. *śakata* > *saadha* ; *cipiṭa* > *cimiḍha*) which in plural becomes *visaḍhā*. In the Deśin (Vii. 62) Hc. refers *visaḍho* as a

deśi word bearing the sense *nīrāgaḥ*, 'devoid of love'. The word *nīrāgaḥ* has an affinity with the Skt. rendering of the same word i.e. *viśirṇa*. The word *visaḍho* is seen also in the Pkt. grammar of Hc. (1.242) differing from the standpoint of meaning. According to him this *visaḍho* is the result of the evolution of the Skt. word *viśa-mah*. In all respect this word differs from the above mentioned *visaḍho*. In the *Pāiasaddamahāṇavo* (page 804) we get the word *visaḍha* which is mentioned as deśivocable bearing the sense "nīrāga", "rāgarahita" etc.

Vīḍhāi (=līlayā) 8.43

The above-cited form is found in the second line of the verse given below :

Pkt. Text :

jam jam ānei girim rai-raha-cakka-parimaṭṭha-siharam
hanumā/
tam tam vīḍhāi ṇalo vāma-karutthalliam raei samudde//
8.43

Skt. Chāyā :

yam yam ānayati girim ravi-ratha-cakra-parimṛṣṭa-śikharam
hanumān/
tam tam līlayā nalaḥ vāma-karotthāpitam racayati samudre//

Variant :N. S. Edition, līlayā for vīḍhāi.

Eng. Translation : As Hanūmat brought each mountain, with its summit worn by the wheel of the sun's chariot. Nala fixed it in position in the sea as he lifted it with his left hand with ease.

The Pkt. word *vīḍhāi* is Sanskritised as *līlayā* in the Sanskrit chāyā provided by Basak. The source of the word *vīḍhāi* is Skt. *vikrīḍayā*. So *vīḍhā* comes from Skt. *vikrīḍā*. *vikrīḍā* comes from the root *vikrīḍ* whose meaning as given by Monier Williams (page-956) is 'to play', 'jest', 'sport with (saha)', 'a child's play' (i.e. 'easy work'), etc.

līlā means 'play', 'sport', 'diversion', 'amusement', 'pastime' (M. Williams, P. 903). So from the standpoint of meaning we find the affinity between *līlā* & *vīḍhā*. This stands as the course of development. *vi-√krīḍ+a=vikrīḍa*. Fem. suffix *ā* is added in it and becomes *vikrīḍā*.

= * vikkīḍā (by assimilation of the conjunct-consonants in the second syllable.)

= * vīkīḍā (in the second syllable there happens then the simpli-

fication of the conjunct-group with the concomitant lengthening of the preceding vowel.)

= * *vīḍā* (intervocalic consonant disappears from the second syllable.)

= * *vīḍā* (by the euphonic combination of the two consecutive *ī* vowels.)

= * *vīḍhā* (aspiration of the consonant *ḍ* takes place in the final syllable.)

= * *vīḍhāi* [with the annexation of the fem. instrumental suffix-*i* (a product of *ye* coming ultimately from fem. suffix-*yai*.)]

The form *vīḍhāi* has no connection whatsoever with the form *līlayā* of Skt. So they should be placed on the same platform of deśī word.

°huttam̐ (=°abhimukham̐) 3.58

The aforesaid word lies in the first line of the verse given below.

Pkt. Text.

aha va mahañṇava-huttam̐ patthantassa gaṇam̐ mahañṇa
vahuṭtam̐/
ruhira-vasāmisā-vattam̐ hantūna vaṇivvuo vasāmi savattam̐//
3.58

Skt. Chāyā :

athavā mahārṇavābhimukham̐ prārthayamānasya gamanam̐
mama na prabhutvam̐/
rudhira-vasāmiṣa-pātram̐ hatvā eva nirvṛtaḥ vasāmi
sapatnam̐//

Eng. Translation : 'Or, the sky will not be wide enough for me as I rush forth with the great sea before me ! I will abide happy after slaying the enemy that lives on flesh, blood and marrow.

In the Deśināmamālā of Hc. we get the form *hutto* (viii 70) for *abhimukhaḥ* bearing the sense of facing, i.e. turning towards. *huttam̐* has no etymological connection with *abhimukham̐*. So, *huttam̐* is counted as a deśī vocable for *abhimukham̐*.

Etymological explanation of *huttam̐* is such : *huttam̐* may come from the Skt. word *hūtam̐* (Monier Williams, p. 1301) formed by the root *hve* with Skt. suffix *ta* (Hc. 2.99). In Skt. root accent is shifted usually on the suffix *ta*. Probably here also the accent is shifted to the second syllable *ta* causing the doubling of *t*. According to Pischel § 564 (page 451) the past passive participle suffix *-ta* in certain cases is directly added to the roots framing the forms like

laṭṭha, *paṭṭha*, *ohaṭṭha* etc. In such cases Skt. adds this suffix after the i-stem. In analogy of the doubling of these words Skt. *hūta* may develop into *hutta* in Pkt.

Here some affinity of meaning between the two forms *hūtaḥ* (called) and *huttam*, *abhimukhaṁ* (turning towards) may be traced. One calling somebody turns his face towards him and as such this needs a turning of the face towards a person who is called. This assigns the meaning of turning towards to Skt. *hūta*. So, *huttam* may be traced from Skt. *hūtaḥ* or word *hutam*.

Secondly, *huttam* comes from the Skt. word *kṛtvah* (Hc. 2. 158) Pischel § 451. In the initial syllable Skt. *ka* appears as *kha*, often in the beginning of the second member of a compound, as *ha*, as in the medial syllable (Pischel § 206). By this law *kṛtvah* becomes *hṛtvah*. *r* becomes *u* and makes the form *hutvah*. *hutvah* becomes *huttaḥ* by assimilation. *h* does not stand in Pkt. So, we get the form *huttam*.

According to Pāiasaddamahāṇava (page 950) *huttam* is a deśī vocable with the meaning *abhimukha*, *saṁmukha*.

The Setubandha is a popular and highly ornate epic. The language of this poetical composition embodies many peculiar forms like the aforementioned deśī vocables. A new horizon will come to our view by the study of these deśī words.

ASPECTS OF THE PHILOSOPHY OF KASHMIR SECTION-II

D. B. SEN SHARMA

The act of manifestation of the world can be looked at from the angle of Parama Śiva in two ways—firstly as a kind of self-experience (Svānubhava) on His part and secondly as a mode of self-manifestation which He does not out of His Free will (svecchayā) during the creative phase (sṛṣṭi). There is however no essential difference in these two descriptions we come across in the texts of Kashmir Śaivism. This can be explained thus : the Śaiva writers unanimously hold that the Divine will (*icchā*) or Divine Resolve (*saṅkalpa*) of the Supreme Lord to experience Himself as many which is the same as to reveal Himself as many (*eko'ham bahu syām*). This is at the root of His creative activity (*sṛṣṭi*) as the Supreme Lord. The *Jñāna* and *Kriyā* are the two chief modes of Divine Śakti through which the Supreme Lord translates His resolve to be many into actuality, Śaivācāryas give two-fold description of the creative process which is in terms of these two Śaktis may be explained this way—

It is said that when the Divine Śakti (Śakti is called Divine Śakti on account of her association with the Supreme Lord) functions as identified with the Supreme Lord (*abhedena sphurati*), He, being the sole Reality, reveals Himself to Himself as one undifferentiated Principle (*akhaṇḍa Paratattva*). This self-revelation by the Supreme Lord to Himself is in the form of self experience (*Sva-parā-marśa* or *Svānubhava*) which, on the highest level, takes the form of "Being experience" or *Ahamtā* in the absence of a second. It may be termed as objectless subjective experience. Since there is no other principle on that level which can limit this self-experience, this is held to be full-in-itself (*pūrṇa*). It has therefore been termed by Somānanda in his Śiva Drṣṭi as self-centred (*nivṛtta cit*) self-experience of *Parama Śiva* implying total absence of any out-ward movement on His part. It is regarded as unique and infinitely potential. As *Ahamtā* is implied in all His subsequent self-experiences, it may be regarded as the foundational self-experience. Even the Naiyāyikas admit that being-experience by the self is implied in all his determinate cognitions of the objective world.

When the Supreme Lord, in order to reveal Himself as Universe, assumes self-limitation (*ātmasaṅkoca*) out of His Free will (*svecc-hayā*). The self-experience of His integral nature (*akhaṇḍa svarūpa*) in the form of *pūrṇāhamtā* which always has, gets covered par-

tially, resulting in the appearance of a void (*śūnya*), as it were, in His self-experience. A split occurs in self-experience. *Pūrṇāhatā* is changed to the experience of *aham* and *śūnya* (void). This *śūnya* is filled of subsequently by the noise of the *īdam* (pure object) in His self-experience. The *īdam*, epitomising the universe thus manifested as object in the self-experience, is then only in the form of an abstract idea as it does not exist apart from or outside Him. Later on, it assumes concrete material form through the operation of *māyā* and *prakṛti śaktis*. The Kashmir Śaivācāryas postulate three steps represented by three tattvas or levels of existence viz. *Sadāśiva*, *Īśvara* and *Suddhavidyā*, through which the ideal universe symbolised by the term *īdam* gradually develops, and assumes distinct form. *Aham* *īdam*, *aham* and *īdam* held in equipoise, *īdam eva aham*—these are the three distinct modes of self-experience by the Supreme Lord on the three levels of *Sadāśiva*, *Īśvara* and *Suddhavidyā* respectively. It may be mentioned here that on the three levels of existence referred to here, the entire universe exists only in seminal form (*bīja*) as an idea in the self-experience of Supreme Lord. Though the self-experience on these levels is made up of two poles of experience, viz. pure subject (*aham*) and pure object (*īdam*), it is said that He does not experience duality on these levels. *Aham* and *īdam* remain bound together by a thread of unity as it were in His Self-experience.

Later, on the lower levels, when *māyāśakti* obscures the true nature of the Supreme Lord, both as pure subject and pure object, it paves way for further limitation and concretisation. It causes the experience of discreteness and differentiation between subjective and objective poles of experience. The Universe then no longer appears to the Supreme Lord as a cosmic idea as it has assumed concrete form and is experienced as such.

Abhinavagupta in his well-known *prakaraṇa* text *Paramārthasāra* has explained the first phase of emergence of world-idea in the self-experience of Supreme Lord on the analogy of mirror reflecting the entire city. In this analogy he has likened the Divine Śakti to a mirror and city to the entire range of creation. Just as city on being reflected in the mirror, does not appear to exist outside it and therefore is experienced as identified with it, in the same way the world emerging as an idea in the initial stage is reflected in the Divine Śakti, and remains identified with it. It then has no existence apart from the Supreme Lord's self-experience (*svānubhava*). It must be remembered that this analogy is to be understood within certain limitations viz. in the case of city reflected in mirror, there exists actual city outside the mirror as a *bimba*. But here in the case of Supreme Lord experiencing world as an idea there is no

bimba existing outside the self-experience of Supreme Lord. Abhinavagupta says that the Paramasiva is the Supreme experiencer who experiences in His śakti the mirror-like reflecting medium, the entire range of creation which has emerged as cosmic idea out of His own free will. Later on, when the world idea is projected outside by Him through the operation of *Māyā* and *Prakṛtiśaktis*, the world as something concrete and external to Him comes to be.

Some texts of Kashmir Śaivism explain the manifestation of the world in terms of self-manifestation by the Supreme Lord. This description actually is in terms of *Kriyāśakti* which is actually responsible for the actualisation of the Divine Idea. It is said that the Supreme Lord is endowed with Divine Śakti technically called *Svātantrya śakti*. Hence He is the free agent ; *Svatantraḥ kartā*. Exercising His Divine Sakti, He, therefore, manifests himself as the universe out of His free will with Himself as the background (*svecchayā svabhittau viśvam unmilayati*). As the manifests Himself as universe comprised of subjects, objects and means of their experience, He assumes the forms of countless number of experiencers (*Pramātā*), objects of experience and enjoyment (*grāhya-visaya*) and means of enjoyment (*pramāṇa*), by negating His absolute nature and by imposing limitations on Himself.

The universe is said to be constituted by thirty four *tattvas* or levels of existence, viz. *sadāśiva*, *Īśvara*, *śuddhavidyā*, *Māyā*, *Rāga*, *Kalā*, *Niyati*, *Kāla*, *Vidyā*, *Puruṣa*, *Prakṛti* and its twenty-three evolutes which are the same as admitted in the Sāṃkhya system. The two *tattvas*, viz. *śiva* and *śakti* are regarded as eternal ones ; hence they are said to exist outside the manifested universe though they are included in the list of 36 *tattvas*. On these different levels of experience as many as seven different kinds of experiences—both pure experiencers and limited or impure experiencers technically called *pasupramātās* are said to be manifested by Him. The pure experiencers are Śiva, Mantra, mantra—Maheśvara and Vidyēśvara, while impure ones are Vijauānakala, Pralāyakaḷa and Sakala. All these are self-manifested forms of the Supreme Lord.

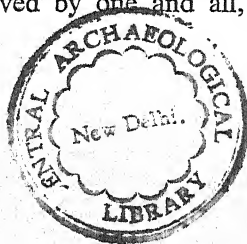
Some texts of Kashmir Śaivism describe this process of self-manifestation as universe by the Supreme Lord as his descent (*avaroha*) on the gross material levels of creation. To put it in the words of Sri Aurobindo, this creative process represents involution of the Supreme pure chaitanya in the realm of gross matter. Later when Supreme Lord exercising His Divine śakti puts an end to his self-limitation. He is said to ascent (*ārōha*) from the state of bondage to the state of freedom, the lowest position of limited being to the highest position of Supreme Lord. This ascent to the

supreme and is what may be called evolution. It may be mentioned here that according to Kashmir Śaivism the descent or involution of the Supreme Lord is non-temporal and instantaneous act, because creation by the Supreme Lord is accomplished in a moment as it were. But His ascent or evolution from limited being to Supreme Being is generally a gradual process in which personal effort on part of the limited individual plays some role. It has been stated in some texts that evolution is generally involuntary process, for limited beings who are believed to be moving gradually towards ultimate destiny, viz. Śivatva, though its pace can be accelerated by the descent of Divine Grace. It is interesting to note here that this theory of descent and ascent, involution and evolution of the Supreme Lord held by Kashmir Śaivites in the sphere of creative process is remarkably modern which has no parallel in the ancient Indian philosophy.

Some Kashmir Śaiva texts describe the process of world-manifestation as *unmeṣa*, literally 'opening out' or unfolding and its dissolution as *nimeṣa*, literally 'closing up' on the part of Paramaśiva. It is said that when the Paramaśiva opens Himself out in the aspect of His Śakti (*svaśaktisphāra*) the world-manifestation comes to be. And when he closes Himself up, the world-manifestation is reabsorbed in the bosom of the Supreme Lord. Being realists and advocates of *Satkāryavada*, the Śaivites believe that the entire range of creation exists in the form of Divine Śakti as identified with Him prior to its manifestation. When the Supreme Lord opens Himself out of His free will, His śakti which was functioning as identified with him revealing His Divinity on the transcendental plane begins to function somewhat differently, and this makes the world to appear. It may be pointed out here that the creative process thus described in terms of *unmeṣa* and *nimeṣa* probably has been inspired by the well-known upanishadic theory of *Dr̥ṣṭisr̥ṣṭivāda*.

To sum up, we can draw the following conclusions. According to Kashmir Śaivites the world manifestation being a mode of self-experience or self-manifestation by the Supreme Lord is real. The limited individual beings (*paśu*) being the limited forms of the Supreme Lord are also real. The entire creative process is voluntary act of the Supreme Lord, in which His free will plays a dominant role. Looking from this point of view, it is a Divine play which He performs out of His ecstatic delight. The attainment of liberation is nothing but restoration of the limited individual to his divine form, and it depends entirely on His free will. Because until and unless He puts an end to His self-imposed limitation through dispensation of grace no one can go to achieve liberation, reach the supreme end.

We can describe this process with the help of analogy from an arched life. Like strict and powerful stage-manager the Supreme Lord firmly controls the enactment of world drama of which He is not only the producer and participant but also the sole spectator. No participant in the drama can defy Him,—the producer or retire from the drama without His will. But this does not mean that individual participants in the drama have absolutely no freedom. They are allowed freedom to act and play their role in the drama within certain limitations. But to obtain freedom from participation in the drama or deliverance, they have to look towards the Supreme Lord, the producer and wait for His grace to come. Since the dispensation of divine grace is an eternal function of the Supreme Lord like the creation of the world, it is said that it is being perennially showered on all limited individuals only those who have developed capacity to receive it actually get it and are released from this world-drama. Kashmir Saivacaryas, however, assure as all that the attainment of Śivatva is the ultimate destiny of all beings, and it will be achieved by one and all, sooner or later.



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A STUDY ON THE FOOD AND FEEDING HABIT OF THE
LEOPARD POMPHRET, *SCATOPHAGUS ARGUS* (LINNAEUS)
FROM THE BRACKISH WATER IMPOUNDMENTS OF
HOOGHLY-MATLAH ESTUARY, LOWER
SUNDERBANS, WEST BENGAL.

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ABSTRACT

The study on the food and feeding habit by using the points method leads to the understanding that *Scatophagus argus* (Linnaeus) is an euryphagus omnivore. The young ones prefer vegetable matter and as they gradually attain growth and maturity they switch over to animal matters. The relative length of gut (RLG) shows an increasing trend with the increasing length of the fish though not sharply.

INTRODUCTION

Scatophagus, the name of the fish itself signifies its food and feeding nature. Some hundred years ago an Indian Ichthyologist stated that the stomach contents consisted of various forms of excrement (cf. Hans, 1965). The latin generic name was derived from the 'Skat' which means dung, hence dung eater or 'Coprophagus'. With this view, the present work has been designed to know whether the fish is really a dung eater. Till todate, a little is known about the food and feeding habit of this leopard pomphret, an important culturable euryhaline fish of eastern coastal waters of India (Day, 1887; Mookherjee *et al.*, 1946, 1949; Chacko, 1949; Pillay, 1954; Datta *et al.*, 1984). The present study also indicates the variation of the relative length of gut (RLG) with the variation of the food components in relation to the changes in the length of the fish.

MATERIAL AND METHODS

The fishes were collected from the brackishwater impoundments of Hooghly-Matlah estuarine complex (lower Sunderbans). For the gut content analysis 'points method' has been adopted (Thompson, 1959). The total length of the body and gut has been taken for determining RLG and computed from the following formula :

$$RLG = \frac{GL}{TL} \text{ where, TL is the total length of the fish and}$$

GL is the length of the gut.

Altogether 184 specimens, ranging from 50-260 mm were used in the present study.

Food spectrum

The food items of *S. argus* include many groups of plants and animals and can be divided into three main categories, which again has been subdivided into several sub-categories (Table 1).

Table 1 : Food spectrum of *S. argus*

Sub- Category	C a t e g o r y		
	Plant matter	Animal matter	Others
1	Bacillariophyceae	Copepoda	Organic detritus
2	Chlorophyceae	Amphipoda	Mud and Sand
3	Cyanophyceae	Tanaids	
4	Chrysophyceae	Annelids	
5	Macrophytes		

CATEGORY : PLANT MATTER

Subcategory 1 : Bacillariophyceae

Diatoms have been found to be in diverse forms in the gut contents and constitute the main food of the fish. The common forms identified are *Navicula*, *Pleurosigma*, *Gyrosigma*, *Synedra*, *Cymbella*, *Fragillaria*, *Coscinodiscus*, *Biddulphia*, *Asterionella*, *Diatoma*, *nitzchia* and *Amphora*. *Coscinodiscus*, *Fragillaria* and *Biddulphia* have been found to be the most common food item.

Subcategory 2 : Chlorophyceae

This group of algae was represented by a variety of assemblages and their occurrence in more numbers in gut has been observed in the fishes caught in monsoon (July to September) and less in winter (October to March) and being very scarce in summer (April to June). The common genera are *Ankistrodesmus*, *Ulothrix*, *Scendesmus*, *Cladophora*, *Oedogonium*, *Spirogyra*, *Closterium*, *Pediastrum* and *Microspora*.

Subcategory 3 : Cyanophyceae

Apart from the Chlorophyceae and Bacillariophyceae this algae, comprising *Lyngbya*, *Nostoc*, *Merismopedia*, *Anabaena*, *Nodularia*, *Oscillatoria*, *Stigonema* in the bulk of gut contents and occurred in

most of the fishes with relatively decreased frequency than Bacillariophyceae but little more than Chlorophyceae.

Subcategory 4 : Chrysophyceae

Dinobryon, *Ochromonas*, *Synura*, *Chrysococcus*, etc. have been observed in the guts of the fish among this category.

Subcategory 5 : Macrophytes

Macrophytes are sometimes found to form the bulk among the others. Following are the major forms : *Elodea*, *Potamogeton*, *Cladophora*, *Enteromorpha*, *Ulva* and *Distylosphaeria*. In the guts some other varieties e.g., *Polysiphonia*, *Chaetomorpha*, *Chara* and *Nitella* are also found, though occasionally.

CATEGORY : ANIMAL MATTER

Subcategory 1 : Copepoda

A number of genera occurred in the guts of the fish. Among them the following genera is relatively more abundant : *Paracalanus*, *Calanus*, *Pseudodiaptomus*, *Diaptomus*, *Oncea*, *Oithona*, etc.

Subcategory 2 : Amphipoda

Among this category only two genera were found namely, *Eriopisa* and *Idunella*.

Subcategory 3 : Tanaids

Genus *Apseudes*, among tanaids has been found to be the only representative. It is interesting to mention, in some fishes this item has been found in considerable numbers.

Subcategory 4 : Annelids

Annelids sometimes form the major bulk of the gut contents. *Neries*, *Prionospio*, *Polydora* were found in the guts, often in very large quantities.

CATEGORY : OTHERS

Subcategory 1 : Decayed organic matter

Unidentifiable plant and animal matter in decayed condition comprises this category. In almost all the guts it occurred in appreciable quantities.

Subcategory 2 : Mud and Sand

Since the fish is a bottom feeder, presence of mud and sand in guts is obvious. Of course, these do not constitute the food for the fish but are ingested along with the food matter and found in the stomach.

FOOD COMPOSITION ON VARIOUS SIZE RANGES : (Table 2)

Size range 1 (50-80 mm)

Altogether 16 specimens were examined and it has been noticed that abundance of plant matter in the gut is higher than the animal matter.

Amongst plant matters Bacillariophyceae and Cyanophyceae constitute the major bulk. Bacillariophyceae constitute 19.21% following Cyanophyceae 17.6%. Decayed organic matter occurred as frequently as phytomatters, but a little lower than Bacillariophyceae (18.0%).

Size range 2 (81-110 mm)

In this group the percentage frequency of the gut content shows a similar condition as that of the preceding size range. Though only 9 specimens have been examined, but among them macrophytes are found in relatively higher percentage (11.6%). A little higher abundance of the animal matter is also noticed.

Size range 3 (111-140 mm)

Altogether 54 specimens were examined. In this size group organic detritus have been found to be predominant (16.3%) and was followed by Annelids (13.3%), the bulk of which consisted of *Prionospio* and *Polydora*. Bacillariophyceae follows the Annelids which consisted of relatively small organisms such as *Pleurosigma*, *Gyrosigma*, *Synedra*, *Fragillaria*, *Coscinodiscus* and *Biddulphia*.

Size range 4 (141-170 mm)

Percentage occurrence of the food items in this group shows a relatively higher value of diatoms (15%), though organic detritus is little more than it (16.0%). Macrophytes, Annelids and Amphipodes are also found to be in higher percentage.

Size range 5 (171-200 mm)

Amphipods have been found to be predominant among this size range. Altogether 10 specimens were examined in which maximum occurrence of amphipodes (23.5%) were observed. Annelids may be designated as second preferred category (10.5%) though organic detritus is found relatively more in percentage (15.0%).

Size range 6 (201-260 mm)

In this size group, as also in the preceding one, the Amphipodes, which occur in relatively higher quantity (21.5%) following Annelids (15.9%).

Table 2 : Percentage occurrence of the different food items in various size ranges of *S. argus*

Size range	No. of species examined	Bacillariophyceae	Chlorophyceae	Chrysophyceae	Macrophytes	Cyano-phyceae	Cope-poda	Amphi-poda	Tanaids	Annelids	Organic detritus	Misc.
50--80	16	19.21	10.3	4.2	6.6	17.6	5.0	6.0	4.0	3.66	18.0	5.33
81--110	9	17.66	11.0	5.3	11.6	12.66	4.0	5.0	3.0	8.1	17.3	4.3
111--140	54	12.33	8.5	4.0	15.0	8.3	6.5	6.7	5.5	13.33	16.3	3.0
141--170	38	15.0	10.0	3.0	11.8	8.0	4.6	10.5	3.6	14.3	16.0	3.0
171--200	50	10.0	9.0	2.0	9.5	7.0	5.5	23.5	4.0	10.5	15.0	3.8
201--260	17	10.5	6.0	1.5	5.5	9.5	6.0	21.5	5.0	15.9	16.0	2.5

Relation between RLG and gut contents

The RLG values varied from 2.822 to 3.47 and showed an increasing trend with the increasing length of the fish, though not sharply. The percentage of animal matter varied from 18.66 to 48.4% and that of the plant matter, it was from 33.0 to 58.22%. It has been observed that the percentage of animal matter increases with the increasing length of the fish, whereas, the case is reverse in plant matters (Table 3).

DISCUSSION

Scatophagus argus (Linnaeus) is an euryphagus omnivore. Based on the analyses of the gut contents, it is evident that they consume a variety of food items, among which algae, macrophytes, amphipodes and annelids predominate. The percentage of greater quantity of organic detritus together with mud and sand in the gut indicate that the fish feeds from the benthic niche and in the shallow marginal areas. Sometimes a clusture of benthic macroinvertebrates together with algal matter may suggest its browsing habit.

Though studied little, the review of literature shows that there exists a cleavage of opinion with regard to food habit of this fish. Day (1887) while reporting this fish stated it as a foul feeder and

Table 3 : Relative length of gut and the percentage of gut contents.

Size range	No. of specimen	Mean RLG	Mean % of Animal matter	Mean % of Plant matter	Mean % of Unidentifiable organic matter
50—80	16	2.822	18.66	57.91	23.33
81—110	9	3.278	20.1	58.22	21.6
111—140	54	3.186	32.03	48.13	19.3
141—170	38	3.438	33.0	47.8	19.0
171—200	50	3.47	43.5	37.5	18.8
201—260	17	3.35	48.4	33.0	18.5

also extended an idea of this fish which is not in request as food by the people. Mookherjee *et al.* (1946, 1949) stated that the young ones are planktonivorous whereas the adults are omnivorous in nature. Chacko (1949) and Pillay (1954) reported the herbivorous nature of the fish. Datta *et al.* (1984) studied the food and feeding habits of this fish in two different ecosystems (brackish and fresh-

water) and concluded that the variety of food spectrum is due to the variations in the availability of different items where they live. While studying the present fishes, certain trends are discernible on the gut contents of various size ranges. The younger ones prefer vegetable matter and as it grows, a remarkable change comes about in the proportion of various food components and the older size groups feed on more animal matters. Schaperclaus (1933) classified the natural food of fishes in three major groups, viz.

- (1) main food which the fish prefers under its normal living conditions and on which it thrives best,
- (2) occasional food that is well liked and consumed as and when available,
- (3) emergency food which is ingested when the preferred food items are not available and on which the fish is just able to survive.

According to Nikolskii (1963), the food consumed by fishes in natural waters may be grouped in four categories based on its relation with the fish :

- (1) basic food which the fish usually consume,
- (2) secondary food which is frequently found in the gut,
- (3) incidental food which rarely enters the gut and
- (4) obligatory food which the fish consumes in the absence of usual food.

The above stated schemes by two distinguished ichthyologists leads to the following conclusion when applied to the results obtained on the food studies of *S. argus*.

- (1) Plant matters constitute the main food as well as the basic food item to the younger ones.
- (2) Animal matters constitute the occasional as well as secondary food item to the younger ones.
- (3) Animal matters become the main or basic food item to the larger ones when the plant matters becoming the occasional and secondary food item.

It is evident that the RLG value has a close relationship with the nature of the food of fishes. Das and Moitra (1963) pointed out that the mid- or bottom feeders may be herbivorous, carnivorous or omnivorous in nature. They have also pointed out that the RLG value in case of herbivore fishes are high in comparison to that of carnivores and omnivores. From the present study it is evident that the fish is omnivorous in nature, and the RLG value also supports

the above contention which is in the line of Das and Moitra (1956, 1963).

The RLG shows an increasing trend with the increasing length of the fish though not sharply (Table 3). According to Das and Moitra (*op. cit.*) the gut length increase with the increase of plant matter in the gut content. Similarly it decreases with the decrease of plant matter and corresponding increase of animal matter in gut content. The ratio between plant and animal matter of the gut content agrees with the data of the RLG value confirming that it is an omnivorous fish, of course, the data of gut content in different length groups does not correspond with the changing of RLG values with the increase of the length of the fish. The contradiction thus arising due to the comparison of the actual dietary habits of the fish with the RLG values support the view that the fish can adapt to the diet available in the particular environment (Nautiyal and Lal, 1984). Also that it is not always possible to relate fish's diet to the length of alimentary canal (Al-Hussaini, 1949).

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ON THE TREATMENT OF Y IN OLD INDO-ARYAN

INDRANI DUTTA

With regard to the treatment of the semi-vowels y and v, the evidences found in the Śikṣās and Prātiśākhya are very interesting, and it appears from these texts that the quality of y and v is not the same throughout its history. I shall here discuss only the treatment of the semi-vowel y¹ and its development in different branches of Indo-Aryan languages.

After studying the śikṣās and the Prātiśākhya it occurs to me that there were perhaps two types of semi-vowel y which could be represented by two different symbols as y and j, one the semi-vowel and the other a spirant respectively. The semi-vowel y (< IE * i) is normally vocalised, whereas the semi-vowel j (< IE * j) is a spirant, and therefore not vocalised but remains as j. Whether the nonvocalic semi-vowel could be considered as fricative or not, depends on the evidence of Indo-European language as supported also by Vedic Sanskrit. It is a fact noteworthy that in the Devanāgarī script these two semi-vowels y are not represented by two different symbols in Sanskrit, but by only one symbol (य). So to distinguish a semi-vowel y from a spirant semi-vowel depends on the treatment of y as vocalic or non-vocalic. It is generally believed that when y is vocalised, it is semi-vowel, and when it is not, it is spirant or fricative. This assumption is based on the description of y as given in the Śikṣās and the Prātiśākhya.

From a study of the Yājñavalkya (10th Cent. A.D.), Laghu Amoghānandini (date not ascertained), Pārāsarī (not before 10th Cent. A.D.) and other Śikṣās, it is evident that the treatment of y is not uniform throughout its history. In the Yājñavalkya Śikṣā, three different types of y are described: *guru* (heavy), *laghu* (light) and *laghūṭara* (very light).

Yājñavalkya says :

*Yavarṇa strividhaḥ prokto gurur laghu laghūṭaraḥ/
ādaḥ gurur laghur madhye patānte ca laghūṭaraḥ//*

(verse 156)

i.e. initially y is heavy (*guru*), medially it is light (*laghu*) and finally very light (*laghūṭara*). The heavy pronunciation of y is generally indicated by great obstruction of air at the initial stage, a light pronunciation is indicated by less effort or exertion and very light is indicated by reducing the semi-vowel into vocalic i. Yājñavalkya further says that in the beginning of a word y is heavy, in

the middle it is light and at the end very light. It is a fact noteworthy that y arising out of sandhi is said to be very light. This idea is also expressed by the *laghu Amoghānandinī Śikṣā* :

*Yat kṛtaṁ sūtrakāreṇa tadvat syāt samprasāraṇam/
taj jñeyam sarvaśākhāsu natu Vājasaneyinām//
lakṣaṇsya virodhe'pi pāṭhaikyam yadi dr̥śyate/
tat tathā pratipattavyaṇya jñāyajñā va'ityatha//*

(Verses 13-14)

It is pointed out that 'the pronunciation of the orthographic y as y was maintained in all schools but the Vājasaneyins. It states that although the orthographic readings of y was the same in both cases, yet when a reading like *yajñāt* occurred, it was to be pronounced as *yyajñāt*, i.e., with a heavy sound in the beginning of a word.²

In the *Keśavī Śikṣā* (dated not before *Pārāśarī Śikṣā*), there is also a remark about the heavy pronunciation of y. It is said there that after *sam* y is to be pronounced as heavy. This is evident by the Pallava grant inscription where the spelling of y after *sam* is written with j, of course, side by side with y, e.g., *saṁyukta* > *saṁjutta*, but *prayukte* is written as *ppayutte*³. Incidentally, it can be mentioned that y also becomes j after *sam* even in literary Prakrit, e.g., *saṁyamaḥ* > *saṁjamo*. This practice is found in almost all the texts of literary Prakrit, though in *Māgadī* y remains in all positions, and perhaps phonetically this y is pronounced as j.

The *Yājñavalkya* and the other *Śikṣās* as well have further indicated that in combination with certain sounds, such as, nasals, ha, r or even ṛ the pronunciation of y was heavy.⁴ But the *Laghu Amoghānandinī Śikṣā* says that y in conjunct with r or h was pronounced as j, particularly in the text of the *Mādhyandina School*, e.g., *bāhya* > *bāhja*, so also *sūrya* > *sūrja*.⁵ It may be noted incidentally that this pronunciation of y as j is responsible for the transformation of y into j in Prakrit, e.g., *sūrya* > *sūrja* > Pkt. *suṛja* (assimilation). In the same *Śikṣā* it is also said that y before ṛ, is also pronounced as j, e.g., *vyṛddhi* >, *vṛddhi*. The same *Śikṣā* does not approve the change of y into j after any prefixes (*upasar-gas*). But in the *Keśavī Śikṣā* it is said that after *Sam*, y is to be pronounced as heavy, and this heaviness is indicated by even doubling the y, e.g., *Samyajñapati* > *saṁyyajñapati*.

But it should be noted that there is hardly any evidence orthographically by which we can prove the heavy qualities of *yakāra*. In the *Mādhyandina School* of the *Śatapatha Brāhmaṇa* as published in the *Acyuta Granthamala* series (Samvat 1994), we find that the initial y is printed doubled, i.e., yy (य) as in the case of semi-vowel v (व). The initial v is printed double in the same *Brāh-*

maṇa perhaps to distinguish it from the semi-vowel v, so also here, the initial y is printed double to distinguish it from the semi-vowel y. For example, *puruṣo yyadanṛtaṃ vvadati* (I. 1.1.1), *Yyo yyajñasya saṃsttham* (I. 1.1.3), *Yyadi nāśnāti* (I. 1.1.9), *YYonir vai gārhapattyā citī* (VII. 1.1.11) and so on. In this connection it may be added that in Prakrit, other than Māgadhi, the initial y is to be replaced by j (Cf. H. C. *āder yo jaḥ*. I. 245). This change of initial y into j perhaps indicates the heavy pronunciation, of y in Prakrit, represented phonetically by j. The evidence of the Śikṣās for this heavy pronunciation of y is mainly preserved in Prakrit other than Māgadhi as also in the Pallava Inscription. These evidences can prove beyond doubt that one statement made in the Śikṣā texts about that the heavy pronunciation of y has a reference to Indo-Aryan language, both in Sanskrit and Prakrit.

The Yājñavalkya Śikṣā also says that medially y is to be pronounced as light, i.e. in pronouncing y in the interior position of a word, less effort is needed, and as a result the light pronunciation of y is heard. This phenomenon is also noticed by Hemacandra in his Prakrit Grammar. He points out that after the elision of some medial consonants, such as, k, g, c, j, t, d, p, y, v (HC. I. 177) a light pronunciation of y is heard (HC. *avarṇo Yaśrutiḥ*, I. 180 : *avarṇāt paro laghuprayatna tarayakāra śrutiḥ bhavati*), provided it is preceded or followed by a or ā, e.g., *Kāka>Kāya*, *pāpa>pāya* etc. Hemacandra has further added that if an a or ā does not follow, then this light y will not be heard, e.g. *vāya>vāu*, *āyu>āu*. But Hemacandra himself breaks the rule by saying that sometimes *yaśruti* even after i, e.g. *piyai* (*Kacid bhavati*). This conception of his rule might suggest that *Yaśruti* may be heard even after other vowels as well. That is why, perhaps, the Prakrit grammarians belonging to the Eastern School, such as, Puruṣottama, Kramadīśvara, Rāmaśarmā Tarkavāgīśa, Mārkaṇḍeya and others sanctioned *Yaśruti* after all sorts of vowels. It is to be noted at the same time that this light pronunciation of y is a matter of hearing rather than writing. So whether we write with or without y is not very important but what we pronounce is more important than the graphic representation of the sound. However, the fact is that this light pronunciation of y is fully preserved in Prakrit, at least, in the Ardha Māgadhi.⁶

In this connection it may be added that the earliest evidence, other than the Śikṣās, of the light pronunciation of y is found in Pāṇini's *Aṣṭādhyāyī*. In his aphorism *vyor laghuprayatnataraḥ śākaṭāyanasya* (VII. 3. 18), he points out that according to Śākaṭāyana the sandhi between e or o with a, ā or other vowels leads us to the fact that a light y-sound may be heard in this type of sandhis. This

fact is also corroborated by the statements made in the *Prāṭisākhya*.⁷ However the light pronunciation of medial y is a fact which is found both in Sanskrit as well as in Prakrit. In fact, it has come down to many New Indo-Aryan languages such as, Bengali, Hindi etc. e.g., Bengali, *Ṣuyar* < Skt. *Ṣukara*, Hindi, *Ṣiyārām* < Skt. *Ṣītārāma*.

In this connection, it might be added that in Pāli medially the light pronunciation of Yakāra is not found, the reason being that like Prakrit the intervocalic consonants are not regularly elided in Pāli. As regards the Yājñavalkya Śikṣā's observation that y when combined with h and r was consonantal, we do not find any distinct evidence of this in Pāli, which still preserves *bāhya* for Skt. *bāhya* and *gāhya* for Skt. *grāhya*, the y remaining unchanged.⁸ But in Prakrit these become *bajjha* and *gejjha* respectively.

Finally, the Yājñavalkya Śikṣā also says that the y is to be pronounced very light, which pronunciation can only be represented by making y as vocalic i (even at the present day in Hindi and other languages y at the end is pronounced something like vocalic i, e.g., *moghalsarāy* pronounced as *moghalsarāi*). This idea of the very short pronunciation of y at the end is hinted by the Amoghānandinī Śikṣā as follows :

*ādyantahrasvyer mantre vakāro yatra dṛśyate/
sa tu hrasva iti prokto bhiyudhyeti nidarśanam//*

(Verse 81)

i.e. y between two short vowels, in the mantras, was said to be not only very light, it was also short, as in the word *abhiyudhya* the intervocalic sonant y was short.

To trace back the history of this fact, we can say that in Avestan the initial y is also treated spirant, i.e. heavy, *guru* in Indian term. On this point Jackson⁹ says—

“The semi-vowels y and v were probably spirants, internal y and v were apparently sometimes spirant, sometimes vocalic”.

Then he illustrates this by saying—

“A possible test as to when y is spirant of semi-vowel, may perhaps be found in the treatment of a preceding t, e.g. *hasya* ‘tree’ (y spirant), but *dā'tya* ‘lawful’ (y semi-vowel *dāl-tia*)”.¹⁰

In Greek, of course, semi-vowel is not represented by any phonetic symbol, but its existence can be inferred on the basis of Sanskrit and other languages. When the semi-vowel y (< IE *i) is elided in Greek the consonantal element is generally reduplicated, e.g. Gk. *leu'ssō* (I Cook) < * *leusiō*, so also Skt. *-sya*, Gk. *-oio* < * *osio* . s being elided in Greek. There is one interesting point to note here that sometimes Sanskrit y is represented by Greek voiced palatal spirant Z, e.g., Skt. *Yā'vaḥ* (corn) = Gk. *Zeid*

'spelt', Skt. *yugam*=Gk. *Zugo'n*, Lat. *jugum*, Goth, *juk* and so on.¹¹ This transformation of Sanskrit y into Greek Z, which is a spirant, shows that there was a spirant semi-vowel *j in Indo-European which was also preserved as spirant in Sanskrit in the early stage of the language. On the basis of these evidences Brugmann in his Comparative Grammar¹² has accepted the spirant semi-vowel *j in Indo-European. But as in Sanskrit only one y is represented by one symbol, it was confused whether there was at all any spirant j in Sanskrit. But the records of the Śikṣās and the Prātiśākhya, also corroborated by the evidence of the Śatapatha Brāhmaṇa of the Mādhyandina School, show that there was a sort of spirant semi-vowel y in Sanskrit. In fact, some of the roots like √*yam* behave in such a way that we are forced to believe that y was, in some cases, spirant. This spirant nature of y can be recognised in those cases where y is not vocalised in places where it should be. For example, from the same root yaj, we have two forms—*yeje* (RV. VI. 36.2) and *Yaṣṭā* (RV. VI. 52.1), where y is not vocalised, and the others are *īje* (RV. VI. 1.9) and *iṣṭā* (AV. V. 3.4) where y is vocalised. In a similar way the other examples can also be cited where y is not vocalised, even though, it might be expected to be so, e.g. *Yayāma* (RV. VII. 38.1) < √*yam*, *Yayātha* (RV. III. 93.10) < √*yād* and so on. Some may doubt whether these y's at the beginning are semi-vowel or spirant. Doubts cannot be avoided even though we may believe that these y's may be the cases of spirant semi-vowel.

To conclude we can say that whenever we see any semi-vowel y not becoming vocalic, we can infer that those y's are coming from spirant or fricative j in Indo-European. This, of course, depends on the type of pronunciation of these two y's in two different places and naturally may be regarded as a dialectal variation.

This paper is intended to understand correctly the initial doubling of y as found in the Mādhyandina School of Śatapatha Brāhmaṇa and to elicit opinions from Scholars to show me more light in the right direction to solve this riddle.

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3. *Epigraphia Indica*, Vol. I, p. 3, Cf. also Verma, *ibid*, p. 128 for his remark.

4. See the appendix.
5. Cf. Verma, *ibid*, p. 181.
6. For a fuller discussion, vide S. R. Banerjee, *The Eastern School of Prakrit Grammarians*, Calcutta, 1977, pp. 100-03.
7. *leśa-ṛttir adhisparśam śakaṭāyanasya* (Atharva veda Prātiśākhya, II. 24) *lupyete travasṛṇapūrvau yavakārau* (Taittirīya Prātiśākhya, X. 12). *leśo vātsapvasyāitayoḥ* (Taittirīya Prātiśākhya, X. 23) *Yavayoḥ padāntayoḥ svaramadhye lopāḥ* (Vājasaneyī Prātiśākhya, IV. 125)
8. Verma, *ibid*, p. 131.
9. Avesta Grammar, § 91.
10. *Ibid*, § 92.1.
11. J. Wright, *Comparative Grammar of the Greek Language*, Oxford, 1912, p. 111.
12. *Elements of the Comparative Grammar of the Indo-Germanic Languages* (Reprint), Varanasi, 1972, p. 452, § 598.

APPENDIX

1. *Yājñavalkya Śikṣā* :

pādādaṁ ca padādaṁ ca sanyogāvagraheṣu ca/
 jaḥ śabda itī vijñeyo yo'nyaḥ sa ya itī smṛtaḥ//
 upasargaparo yastu padādirapi dṛśyate/
 Īṣatsprṣṭo yathā vidyutpadacchedāt param bhavet//
 tvadarshavācināu vovām vai yadi nipātajan/
 ādeśaś ca vikalpāratha īṣatsprṣṭa itī smṛtaḥ//
 vibhāṣayā yakāraḥ syāt tathā neti padāt paraḥ/
 bhavatītyapi pūr vaiva tathā ca sapadādapi//
 Yavarṇa strividhaḥ prakto gurur laghu laghūtarah/
 ādaṁ gurur laghur madhye padānte ca e'aghūtarah//
 sandhijau tu padāntīyāvupasargaparau laghū/
 atha mā sa na śabdebhyo vibhāṣāmreḍite yavau//
 pañchamā duttaro yo vo yadi caikapde bhavet/
 saṁhitāyām laghuḥ so'pi padakāle gurur bhavet//
 jātye ca svarite caiva yakāro yatra dṛśyate/
 Kartavya ubhayoḥ kṣepaḥ sadasāriti darśanam//
 (Verses 150-153, 156-158, 160)

2. *Laghu Amoghānandinī Śikṣā* :

pādādaṁ ca padādaṁ ca sanyogāvagraheṣu ca/
 jaḥ śabda itī vijñeyo yo'nyaḥ sa ya itī smṛtaḥ//
 Yuktena manasā tadvat tattvā yāmi tathā param/
 anukāśena vāhyam ca turīyamanuyā pade//
 padādāvapyā vicchede sanyogānte ca tiṣṭhatām/
 varjayitvā rahau yānām īṣatsprṣṭatvam īṣyate//

Vidyādyadi nyamitrāṅśca vocansya yathā bhavet/
tathā pāryāya sūryaśca muhyantvanye samūrhyavat//
uparargapharo yastu padādir api drśyate/
īṣatspr̥ṣṭo yathā vidyutpadacchedītparo bhavet//

(Verses 1—5)

3. *Padyātmikā Śikṣā :*

ādyantasthasya joccāraḥ padātau paṭhitasya ca/
upasargaparo yastu yasya chandesi neṣyate//
padesyādyantamadhye syādr̥śahaiḥ saṅgyamtsya ca/
dvirbhāve' pyevameva syāditi kātyāyanaśrutiḥ//

(Verses 7—8)

4. *Keśavī Śikṣā*

padātau pūrvāhalvordviyor ccārau saṁpurvayos'
chandasi/
padāntavyaḥhara phyuguarya yaśca/

(1—2)

5. *Pratijñā Sūtra*

athāntasthānām ādyasya padādisthasy ānyahala saṁ-
yuktasya saṁyuktasyāpi rephoṣmāntyābhyām ṛkāreṇa
cāviṣeṣeṇādimaḍhyā vasāneṣunccāreṇa jakāroccāraṇam.

(II. 1.)

NEW LIGHT ON THE KANISHKA ERA

B. N. MUKHERJEE

The subject of this communication is an image pedestal inscription now included in the collection of the Asian Art Museum of San Francisco, U.S.A. Though the epigraph is now fragmentary, the readable portion clearly indicates its date and purpose. Its relevant portion can be read as .. (ti)rājasya (De)vāputrasya (Shā)hi-Vāsudevasya rāja (saṁ) vatsar(e) 100 [+] 70 [hi] (ma) pa(kha)sa (di)tiya 2 divasa trī(ti)(ya) etasa....Ārya (Cha)kraya-pratimā pratishṭhāpit(ā)m. Hence the record perpetuates the installation of an image of Chakra (i.e. Nāga) on the third day of the second fortnight of the winter (?) season during the regnal year 170 of the King of Kings, the Son of Heaven, King Vāsudeva. Since the record must be palaeographically assigned to the Kushāṇa age and the image concerned belongs to the Mathura school of art, there is no doubt that Vāsudeva with the epithet *Devaputra* must have been a Kushāṇa monarch. The year 170 can be logically referred only to the Kanishka era.

This date proves the continuity of the Kanishka Era in its second century and suggests that the king in question should have been the second and not the first Kushāṇa king of that name. Vāsudeva I is known to have ruled from the year 64 or 67 to the year 98 of the Kanishka Era and so in a period much earlier than the year 170. The epigraph in question is the first known inscription of Vāsudeva II, the last known Kushāṇa emperor (B. N. Mukherjee, *The Rise and Fall of the Kushāṇa Empire*. Calcutta, 1988, pp. 180f). His rule has so far been indicated by coins and Chinese and Armenian literature (*ibid.*, pp. 180f and 230-231).

Since the greater part of the Kushāṇa empire was annexed to the Sasanid empire by c. A.D. 262, Vāsudeva II, who ruled over the western as well as the eastern part of the empire (*ibid.*, p. 236), and who had been on the throne in c. A.D. 230 (*ibid.*, p. 230), might well have ended his reign by that date (A.D. 262). Hence the year 170 of the Kanishka Era should be placed in or before c. A.D. 262. This means that the first year of this reckoning cannot be placed after (c. A.D. 262-170=) c. A.D. 92.

This inference supports strongly the theory advocating the identification of the Kanishka Era with the Śaka Era of A.D. 78. At least there is now no doubt that the great Kushāṇa king Kanishka I ruled in the last quarter of the 1st century A.D.

BOOK REVIEW

ARVIND SHARMA (WITH AJIT RAY, ALAKA HEJIB, KATHERINE K. YOUNG) ED : SATI. MOTILAL BANARSIDASS, DELHI, 1988

The book itself is in 84 pages divided into twelve chapters of which the first eight and ch 11 are by Arvind Sharma, chs 9 and 10 by Ajit Ray and the last chapter is by Aloka Hejib and Katherine K. Young. Prof. M. N. Srinivas has written a foreword and there is a preface by Arvind Sharma. At the end there are twenty-nine pages of notes and a bibliography.

The first chapter gives a concise historical account of the Western reaction to the institution of Sati, this is followed by a short chapter on the Tradition of Indigenous Protest against Sati ; in both there is much information about the practice. The next three chapters : Reaction of Hindus and non-Hindus, the Role of the Brāhmaṇas in the commission of Satī, and Brāhmaṇa Widows and Satī are short and give some fairly well-known facts together with less-known details. Ch 6 : The Scriptural sanction for Satī in Hinduism is much too short and incomplete ; it gives a very general resume' of Shastric injunctions. The next very short chapter on the Identification of a New Form of Satī gives a brief account of queen Yaśomatī's self-immolation on the eve of king Prabhākaravardhana's death, as found in Bāṇabhaṭṭa's *Harṣacarita*. Ch 8 compares Raja Rammohun Roy and Bal Gaṅgadhara Tilak's attitudes to Satī and is followed by a chapter on Widows are not for burning : Native Responses to the Abolition of the Satī rite. This chapter contains an informative account of what was happening in the Indian scene on this crucial problem of the day. This is followed by another chapter on the same subject : Widows are not for burning but here we are given the Christian Missionaries' Participation in the Abolition of the Satī rite. In this chapter some rather less known facts about the Western missionaries' reaction to the practice are summarized. Ch 11 : The Bhagavadgītā : Its Role in the Abolition gives Rammohun Roy's casuistry in summoning the evidence of the Gītā to win his case against Satī. The last chapter on Satī Widowhood and Yoga seeks to present the widow's life of austerity as yoga.

Ch IX which presents Christian missionaries' reaction to Satī is very informative and thorough, offering a good analysis of the psychology operative behind the abolitionists' and traditionalists' reaction to this practice. On pp 76-77 we are given a short description of the Satī and her psychology during this suicide ; she believed that

the husband's span of life depended on her virtues as a wife, i.e. on 'satīṭva'.

In Ch 8 the comparison between Roy and Gokhale is not quite pertinent to the theme because Gokhale was vocal not about Satī at all but on the age of consent—quite another issue. The relevance the author seeks to emphasize viz. that two different stages in history evoked two different reactions is rather bennons, and out of context in the present volume.

Throughout the book there is a great preoccupation with legal fairness ; two sides of a question are presented with objective, non-committal equanimity. This is most unfortunate, as the issue is not yet a dead issue in 1989, with Śaṅkarācārya, the present-day spiritual leader of Hindudom blessing justifying and supporting the practice and the Viśva Hindu Pariṣad upholding the banner of Hindu fundamentalism, one wonders whether this subject should be merely dissected as a corpse in it is very much alive.

A few errors meet the eye : on p. 81 we read 'expedited' for 'expiated' ; in footnote no 357 a passage is quoted but the name of author, publisher, date are not given ; on p. 77 the meaning of the word 'vidhavā' is given as 'without fortune' ; this is wrong. The word derives from the Indo-European * 'widhewo' from which is also derived the Latin viduus, meaning 'void'. The last chapter is an exercise in the ingenious equation of the widow's forced austerity with yoga ; she is made into a 'tapasvinī', several erroneous views are postulated here (1) the widow's austerity is not "the gradual recovery of satīṭva" (p. 78), it is much more an expiatory, practice (2) a yogin exercises option, while austerity is forced on the widow by society (as the authors say at the very end) (3) through these austerities the widow did not "burn away her defilement" (p. 80) ; she simply joined her husband (through death) in the next world (4) a yoginī or tapasvinī renounces the world, and its demands on her, whereas the widow remains in the world and is obliged to fulfil several responsibilities without enjoying any new rights in return ; she exists on sufferance in most households is treated as a second-class, inauspicious citizen (5) yoginīs are not inauspicious as widows are. Besides, women were not allowed to practice yoga except in minor non-conformist sects.

The footnotes are many and many of them are informative ; although not all. The chapter on the *Bhagavadgītā* fails to mention the fear of racial intermixture for which it held women alone responsible (cf *strīṣu duṣṭāsu vārṣṇeya jāyate varṇasaṃkaraḥ* I : 40) ; hence widows are better burnt with head sponges for fear of their polluting the castes. The glorification of Indian widows as pure, selfless creatures dedicating their lives to the service of others is a

very thin veneer to cover the cruel injustice society metes out to them. It is time we saw our heritage in a more clear-sighted way.

Despite much information, there is a structural weakness in the book in its lack of analysis of this unmitigated social evil which should have been attempted in a book published in 1988 i.e. after Roop Kanwar.

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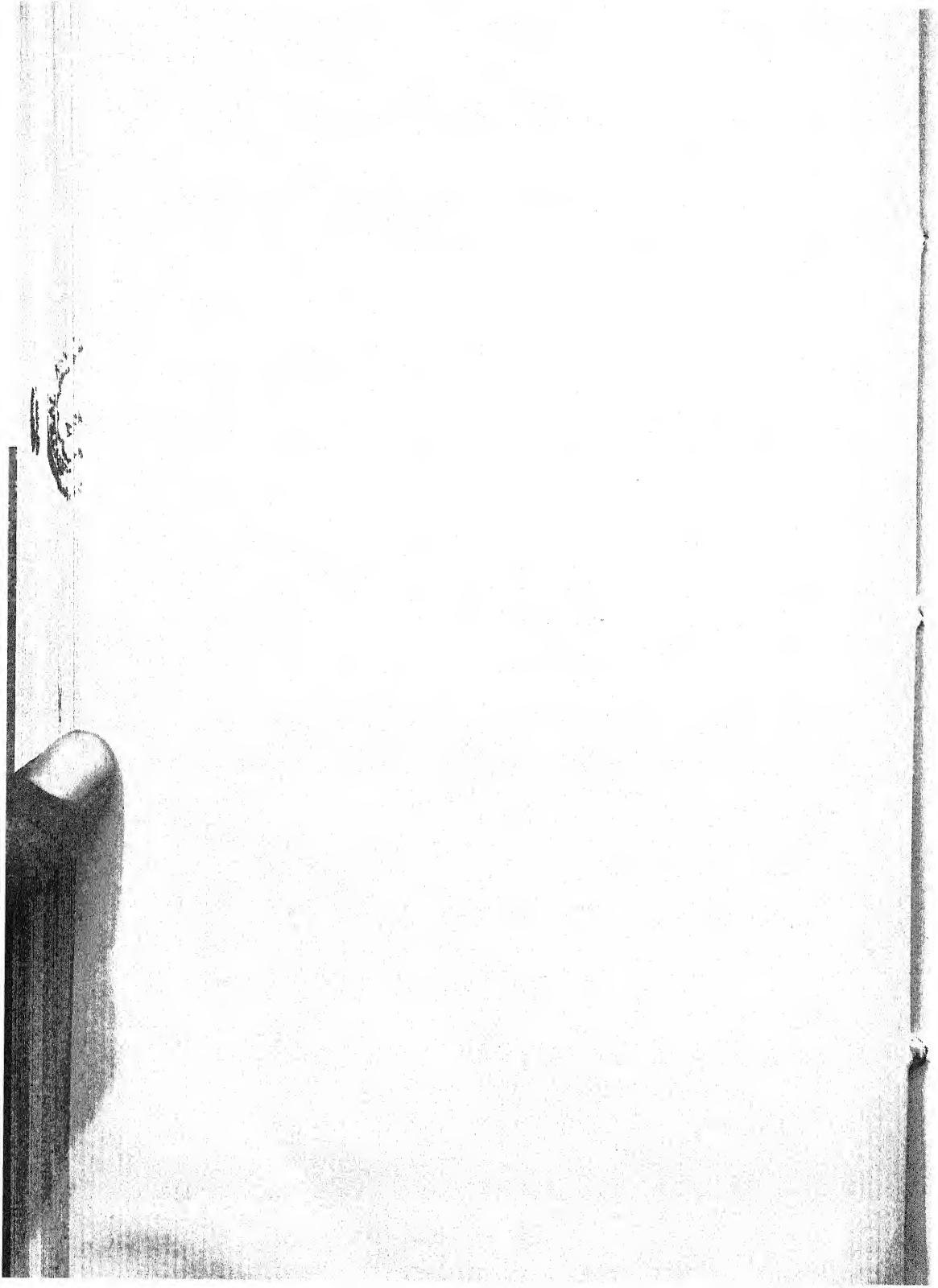
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BIOLOGY OF FISHES
IV. LENGTH-WEIGHT RELATIONSHIP AND CONDITION
INDEX OF CTENOPHARYNGODON IDELLA
(PISCES : CYPRINIDAE)

S. L. CHONDAR

Introduction

Ctenopharyngodon idella (Valenciennes), a fast growing Chinese major carp, exotic to India, and commonly known as Grass carp, is an important food fish ideal for composite culture of Indian and Chinese major carps and effective biological control of noxious aquatic weeds. Since its introduction in Indian waters in 1959 a very limited work has been done on the biology of this fish reared in India, but this does not include the length-weight relationship studies. The present communication, which deals with the length-weight relationship and condition index of *C. idella* as the fourth paper of this series, seems to be the first attempt on this research aspect.

The study of length-weight relationship of fish has a great objective value. Its outcome can successfully be applied in fishery biological knowhow. The 'Condition Index' of the relationship (Thomson, 1942, Le Cren, 1951) reflects plumpness of fish, in turn their feeding conditions in the environment. The numerical representation providing an index of condition of fish is, therefore, useful for comparative studies of the well-being of fish in different eco-systems. The mathematical application of this relationship can whereas be utilised in estimating the weights of fish of known lengths or vice versa and counting the catch statistics from weight to numbers as to assess the abundance of stock in a space and time.

Material And Methods

In total 322 fresh specimens of *C. idella*, irrespective in size, sex and gonadal maturity, and obtained from two different agro-climatic regions, were utilised. Of which, 164 fishes having total length range 107.0-923.0 mm and weight range 10.0-11,000.0 gm were pond-reared from the Lamphel Fish Farm, Imphal, Manipur ; and the rest 158 fishes of 400.0-923.0 mm in total length and 600.0-11,000.0 gm in weight were from the Barasagardighi (Malda, West Bengal), a dug-out, very deep, 300 years old, large (c. 60 ha) tank heavily infested with submerged weed.

The length measurements were rounded to nearest 1.0 mm, while the weights were recorded to least count of 1.0 gm for the smaller size and 5.0 gm for the bigger fishes.

The observed length and the weight measurements of the individual specimens were first converted into log values, and then these values were fitted in the Allometric Law formula (i.e., $W=aL^b$ or $\log W=a+b \log L$ when expressed logarithmically, where W =weight of fish, L =total length of fish, and 'a' and 'b' are two constants) as to work out an empirical equation for the relationship. The values of the slope (a) and the exponent (b) are calculated employing the following formulae :—

$$b = \frac{n \sum xy - \sum x \cdot \sum y}{n \sum x^2 - (\sum x)^2}, \text{ and } a = y - b\bar{x}$$

The coefficient of correlation of the length-weight relationship (r) of the fish is calculated by the formula,

$$r = \frac{n \sum xy - \sum x \cdot \sum y}{\sqrt{n \sum x^2 - (\sum x)^2} \sqrt{n \sum y^2 - (\sum y)^2}}$$

The regressions of the length-weight relationship of *C. idella* of Lamphel fish farm and Barasagardighi were compared by analysis of Covariance (Snedecor, 1955) to test the significance of difference in their well-beings between the two ecosystems.

Results and Discussions

Tables 1 a & b presented the observed and calculated log values of the total length and the weight of the fish and the condition index of the individual specimens of *C. idella* of the Lamphel fish farm and the Barasagardighi, respectively. The tables are self content which expresses also the general health condition of the individual specimens.

Table 2 exhibits the statistics for regression of logarithm of weight on logarithm of length for the fishes of each ecosystem and their pooled values. The equations worked out for these regressions are as follows :

- i) Lamphel *C. idella* : $\log W = -3.4535 + 2.4166 \log L$ ($r=0.6953$)
- ii) Barasagardighi *C. idella* : $\log W = -4.2445 + 2.7607 \log L$
($r=0.3001$)
- iii) Pooled : $\log W = -2.9057 + 2.2365 \log L$ ($r=0.6217$).

The regression coefficient of the relationship of the fishes of the two ecosystems has been tested employing the analysis of covariance and found $f=1.6033$ at 1,318 degree freedom being non-significant (Table 3). Thus the regression values of both the sources are combined and the pooled regression has been taken as the general equation for mathematical relationship between the length and the weight of this species (Fig. 1).

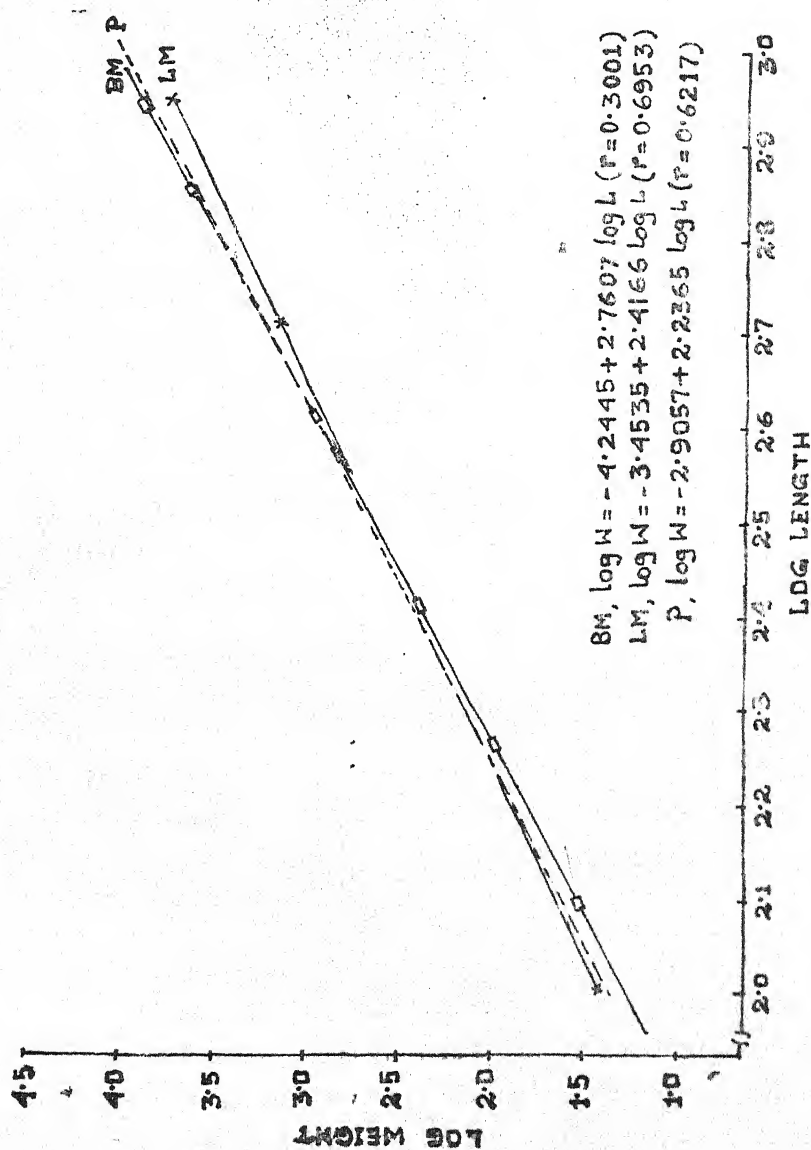


Fig. 1 — Length-weight linear relationship in *Ctenopharyngodon idella* of Barasagardighi (BM), Lamphel Fish Farm (LM) and the pooled regression (P).

In cube law ($W=aL^3$) the weight of a fish equals to the cube of the length (Spencer, 1871; Clark, 1928; Allen, 1938). Since none of the above equations obeys the cube law, the application of the allometric law in the present case is found to be appropriate. The allometric law appears to be superior, in general, to the cube law in the expression of the length-weight relationship of fish, because the 'a' and 'b' of the former may vary within wide limits for very similar data, and are also sensitive to even quite unimportant variation in 'b'. Further, the exponent values for Lamphel grass carp ($b=2.4166$) and for pooled equation ($b=2.2365$) do not agree with the findings of Hile (1936), Beverton & Holt (1957) and Le Cren (1951) who stated that the 'b' value normally vary within a limit between 2.5 and 4.0. Rather the 'b' values of these two equations are in agreement with the work of many other authors (Antony Raja, 1967; Thakur *et al.*, 1974; Chondar, 1975) who indicated the exponent value being beyond the above cited normal range.

The Lamphel grass carp exhibited a fair degree of coefficient of correlation ($r=0.6953$) while the Barasagardighi grass carp had poor correlation ($r=0.3001$) in their length-weight regressions. The pooled regression whereas showed a fair relationship ($r=0.6217$).

The ponderal index assumes the cube law. The relative condition index, K_n (Le Cren, 1951) is found to have better expression in calculation of the general health condition of the fish than the ponderal index. The mean K_n values of individual kg-weight groups of the fish of the two environments as computed in Table 4 expressed that the mean condition indices of each weight groups of the Lamphel grass carp are more than those of the Barasagardighi ones. This indicates that the general health of the Lamphel grass carp was better than the Barasagardighi grass carp. Further, the average K_n value 1.0605 estimated on the entire number of observations of the Lamphel grass carp indicates better plumpness than that of the Barasagardighi grass carp whose

condition index is found to be relatively lesser ($K_n=1.0106$). The condition index of the Lamphel fishes showed a fair departure from 1.0 to the extent of 0.06 in the ratio between the observed value and the calculated value of the fish weight. The abnormalities noticed in the condition indices of some individual specimens of the Lamphel fish farm may be due to their abnormal weights in relation to their length.

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TABLE—I a

Computation of length-weight relationship and condition index of
Ctenopharyngodon idella of Lamphel Fish Farm, Imphal (Manipur)

log Length	log Weight	$\log W=a+b \log L$	Antilog of calculated value of log W	Condition index Kn
1	2	3	4	5
2.0294	1.0000	1.4507	28.2	0.3546
2.0414	1.1139	1.4797	30.2	0.4305
2.0492	1.2304	1.4986	31.5	0.5397
2.0531	1.2304	1.5082	32.2	0.5279
2.0645	1.2553	1.5356	34.3	0.5248
2.0755	1.2788	1.5621	36.5	0.5205
2.0969	1.3010	1.6139	41.1	0.4866
2.1072	1.3424	1.6387	43.5	0.5057
2.1238	1.4150	1.6789	47.7	0.5451
2.1303	1.4314	1.6946	49.5	0.5454
2.1399	1.4771	1.7178	52.2	0.5747
2.1523	1.5185	1.7477	55.9	0.5903
2.1614	1.5563	1.7697	58.8	0.6122
2.1673	1.5798	1.7840	60.8	0.6250
2.1790	1.6232	1.8123	64.9	0.6471
2.1903	1.6627	1.8396	69.1	0.6657
2.1986	1.6902	1.8596	72.4	0.6768
2.2041	1.7243	1.8729	74.6	0.7104

1	2	3	4	5
2.2122	1.7559	1.8925	78.1	0.7298
2.2201	1.7853	1.9116	81.6	0.7475
2.2304	1.8261	1.9365	86.4	0.7755
2.2355	1.8451	1.9488	88.9	0.7874
2.2430	1.8751	1.9669	92.7	0.8091
2.2528	1.9138	1.9906	97.8	0.8384
2.2624	1.9445	2.0138	103.2	0.8527
2.2718	1.9777	2.0365	108.8	0.8732
2.2810	2.0086	2.0588	114.5	0.8908
2.2900	2.0212	2.0805	120.4	0.8721
2.2922	2.0374	2.0858	121.8	0.8949
2.3010	2.0607	2.1071	128.0	0.8984
2.3096	2.0682	2.1279	134.2	0.8718
2.3181	2.0792	2.1484	140.7	0.8529
2.3304	2.0969	2.1781	150.7	0.8295
2.3364	2.1139	2.1926	155.8	0.8344
2.3424	2.1238	2.2071	161.1	0.8256
2.3483	2.1335	2.2214	166.5	0.8168
2.3522	2.1461	2.2308	170.1	0.8230
2.3560	2.1553	2.2400	173.8	0.8228
2.3617	2.1818	2.2538	179.4	0.8473
2.3692	2.2095	2.2719	187.0	0.8663

1	2	3	4	5
2.3747	2.2304	2.2852	192.8	0.8817
2.3838	2.2672	2.3072	202.9	0.9118
2.3892	2.3010	2.3202	209.0	0.9596
2.3944	2.3444	2.3328	215.2	1.0269
2.3979	2.3424	2.3413	219.4	1.0027
2.4031	2.2148	2.3538	225.8	0.7263
2.4082	1.2553	2.3661	232.3	0.7749
2.4133	2.3096	2.3785	239.0	0.8535
2.4199	2.3222	2.3944	248.0	0.8468
2.4265	2.3424	2.4104	257.3	0.8550
2.4281	2.2718	2.4142	259.5	0.7206
2.4297	2.2553	2.4181	261.9	0.6873
2.4346	2.3222	2.4299	269.1	0.7804
2.4393	2.3655	2.4413	276.2	0.8399
2.4440	2.3002	2.4527	283.6	0.8463
2.4471	2.4065	2.4602	288.5	0.8839
2.4518	2.4099	2.4715	296.1	0.8679
2.4533	2.4281	2.4751	298.6	0.8975
2.4548	2.4065	2.4788	301.2	0.8466
2.4594	2.3979	2.4899	309.0	0.8091
2.4639	2.4314	2.5007	316.7	0.8525
2.4683	2.4533	2.5114	324.6	0.8749

1	2	3	4	5
2.4713	2.4624	2.5186	330.1	0.8785
2.4814	2.5391	2.5430	349.1	0.9911
2.4843	2.4771	2.5500	354.8	0.8455
2.4885	2.4166	2.5602	363.2	0.7186
2.4914	2.5185	2.5672	369.1	0.8941
2.4969	2.5315	2.5805	380.6	0.8933
2.5024	2.5798	2.5938	392.5	0.9681
2.5065	2.5563	2.6037	401.5	0.8966
2.5092	2.5378	2.6102	407.6	0.8464
2.5132	2.5441	2.6199	416.8	0.8397
2.5185	2.5623	2.6327	429.2	0.8504
2.5224	2.5465	2.6421	438.6	0.8025
2.5237	2.6232	2.6453	441.9	0.9504
2.5276	2.6365	2.6547	451.5	0.9590
2.5302	2.5740	2.6610	458.1	0.8186
2.5327	2.5172	2.6670	464.5	0.7083
2.5340	2.5955	2.6702	468.0	0.8419
2.5365	2.5705	2.6762	474.5	0.7840
2.5403	2.6021	2.6854	484.6	0.8254
2.5441	2.6990	2.6946	495.0	1.0101
2.5465	2.7160	2.7004	501.6	1.0366
2.5490	2.7404	2.7064	508.6	1.0814

1	2	3	4	5
2.5514	2.7243	2.7122	515.5	1.0281
2.5563	2.7283	2.7240	529.7	1.0100
2.5611	2.7324	2.7356	531.6	1.0158
2.5647	2.7283	2.7443	551.1	0.9708
2.5682	2.7781	2.7528	566.0	1.0600
2.5705	2.7959	2.7584	573.3	1.0902
2.5740	2.8627	2.7668	584.5	1.2472
2.5763	2.7234	2.7724	592.1	0.8934
2.5775	2.8645	2.7753	596.1	1.2279
2.5009	2.7411	2.7835	607.4	0.9074
2.5843	2.7781	2.7917	619.0	0.9693
2.5877	2.7730	2.7999	630.8	0.9401
2.5899	2.8000	2.8052	638.6	0.9881
2.5911	2.8639	2.8081	642.8	1.1372
2.5944	2.8062	2.8161	654.8	0.9774
2.5988	2.8162	2.8268	671.1	0.9760
2.6010	2.8055	2.8321	679.4	0.9405
2.6021	2.8293	2.8347	683.1	0.9881
2.6042	2.8350	2.8398	691.5	0.9891
2.6064	2.8426	2.8451	700.0	0.9943
2.6085	2.8837	2.8502	708.3	1.0800
2.6096	2.8325	2.8528	712.5	0.9544

1	2	3	4	5
2.6138	2.8938	2.8630	729.5	1.0733
2.6170	2.8842	2.8707	742.5	1.0316
2.6201	2.8976	2.8782	755.4	1.0458
2.6232	2.7781	2.8857	768.6	0.7806
2.6263	2.9345	2.8932	782.0	1.0997
2.6304	2.9542	2.9031	800.0	1.1250
2.6385	3.0000	2.9227	837.0	1.1947
2.6434	2.9868	2.9345	842.4	1.1515
2.6503	3.0414	2.9512	893.7	1.2308
2.6570	3.0863	2.9674	927.7	1.3150
2.6599	2.9717	2.9744	942.7	0.9939
2.6627	3.0881	2.9812	957.6	1.2792
2.6665	3.0824	2.9904	978.1	1.2361
2.6758	3.0917	3.0128	1029.9	1.1991
2.6857	3.0969	3.0368	1088.4	1.1484
2.6972	3.2041	3.0645	1160.1	1.3792
2.7059	3.2553	3.0856	1217.9	1.4779
2.7110	3.3222	3.0979	1252.9	1.6761
2.7152	3.3617	3.1080	1282.4	1.7935
2.7324	3.3522	3.1496	1411.3	1.5943
2.7324	3.3222	3.1593	1443.1	1.4552
2.7466	3.3711	3.1839	1525.4	1.5406

1	2	3	4	5
2.7497	3.3263	3.1914	1553.9	1.3643
2.7686	3.3927	3.2371	1726.3	1.4308
2.7723	3.4150	3.2460	1762 0	1.4756
2.7810	3.4771	3.2671	1849.7	1.6218
2.7924	3.5051	3.2946	1970.6	1.6239
2.7979	3.5051	3.3079	2031.9	1.5748
2.7993	3.5078	3.3113	2047.9	1.5723
2.8021	3.5099	3.3180	2079.7	1.5555
2.8034	3.5116	3.3212	2095.1	1.5503
2.8062	3.5125	3.3280	2128.2	1.5294
2.8082	3.5139	3.3328	2151.8	1.5173
2.8095	3.5145	3.3359	2167.2	1.5088
2.8109	3.5156	3.3393	2184.2	1.5008
2.8156	3.5185	3.3507	2242.3	1.4717
2.8176	3.5211	3.3555	2267.3	1.4643
2.8195	3.5231	3.3601	2291.4	1.4554
2.8208	3.5237	3.3632	2307.8	1.4473
2.8235	3.5263	3.3698	2343.2	1.4339
2.8280	3.5453	3.3806	2402.2	1.4611
2.8299	3.5471	3.3852	2427.7	1.4520
2.8325	3.5478	3.3915	2463.2	1.4330
2.8335	3.5490	3.3947	2481.4	1.4266

1	2	3	4	5
2.8350	3.5508	3.3976	2498.2	1.4230
2.8369	3.5533	3.4021	2524.1	1.4163
2.8388	3.5864	3.4067	2550.9	1.5124
2.8413	3.5551	3.4128	2587.1	1.3876
2.8432	3.5551	3.4174	2614.6	1.4868
2.8451	3.5563	3.4220	2642.5	1.3623
2.8512	3.6021	3.4367	2733.4	1.4634
2.8549	3.7781	3.4456	2790.1	2.1505
2.8751	3.7404	3.4945	3122.5	1.7614
2.8976	3.7097	3.5488	3538.4	1.4484
2.9111	3.9542	3.5815	3815.1	2.3590
2.9201	3.9294	3.6032	4010.6	2.1194
2.9474	4.0086	3.6692	4668.8	2.1847
2.9652	4.0414	3.7122	5154.7	2.1339
2.6021	2.7781	2.9391	869.2	0.6903
2.6232	2.7781	2.9974	994.0	0.6036
2.6284	2.7781	3.0117	1027.3	0.5840
2.6284	2.8129	3.0117	1027.3	0.6327
2.6284	2.9294	3.0117	1027.3	0.8274
2.6335	2.8451	3.0258	1061.2	0.6596
2.6335	2.8751	3.0258	1061.2	0.7067
2.6335	2.9031	3.0258	1061.2	0.7539

1	2	3	4	5
2.6335	2.9777	3.0258	1061.2	0.8952
2.6385	2.9294	3.0396	1095.5	0.7759
2.6385	3.0000	3.0396	1095.5	0.9128
2.6434	2.9294	3.0531	1130.1	0.7521
2.6434	2.9542	3.0531	1130.1	0.7964
2.6474	3.0792	3.0669	1166.5	1.0287
2.6532	3.1206	3.0802	1282.4	1.0978
2.6627	3.0000	3.1064	1277.6	0.7827
2.6627	3.0607	3.1064	1277.6	0.9001
2.6627	3.0212	3.1064	1277.6	0.8218
2.6627	3.0969	3.1064	1277.6	0.9784
2.6627	3.0792	3.1064	1277.6	0.9393
2.6721	3.0000	3.1324	1356.5	0.7372
2.6721	3.1072	3.1324	1356.5	0.9436
2.6721	3.1303	3.1324	1356.5	0.9952
2.6721	3.1903	3.1324	1356.5	1.1426
2.6767	3.1903	3.1451	1396.4	1.1100
2.6785	3.1903	3.1500	1412.6	1.0973
2.6812	3.1461	3.1575	1437.2	0.9741
2.6812	3.1761	3.1575	1437.2	1.0437
2.6812	3.1973	3.1575	1437.2	1.0959
2.6821	3.1461	3.1600	1445.5	0.9685

1	2	3	4	5
2.6839	3.1614	3.1649	1461.9	0.9918
2.6857	3.1703	3.1699	1461.9	1.0124
2.6857	3.1761	3.1699	1461.9	1.0261
2.6857	3.1973	3.1699	1461.9	1.0774
2.6857	3.1986	3.1699	1461.9	1.0808
2.6857	3.2014	3.1699	1461.9	1.0876
2.6857	3.2014	3.1699	1461.9	1.0944
2.6893	3.2279	3.1798	1512.9	1.1170
2.6911	3.1673	3.1848	1530.4	0.9605
2.6911	3.3010	3.1840	1530.4	1.3068
2.6937	3.1903	3.1920	1556.0	0.9961
2.6946	3.1761	3.1945	1565.0	0.9585
2.6946	3.1903	3.1945	1565.0	0.9904
2.6946	3.2041	3.1945	1565.0	1.0224
2.6990	3.0000	3.2066	1609.2	0.6214
2.6990	3.1903	3.2666	1609.2	0.9632
2.6990	3.2041	3.2066	1609.2	0.9943
2.7007	3.2304	3.2113	1626.7	1.0451
2.7033	3.2430	3.2185	1653.9	1.0581
2.7076	3.2672	3.2304	1699.8	1.0884
2.7076	3.3522	3.2304	1699.8	1.3237
2.7118	3.0792	3.2420	1746.0	1.06873

1	2	3	4	5
2.7126	3.2041	3.2442	1754.7	0.9118
2.7126	3.3010	3.2442	1754.7	1.1397
2.7135	3.4314	3.2466	1764.4	1.5303
2.7160	3.3852	3.2526	1793.1	1.3541
2.7168	3.2601	3.2558	1802.2	1.0099
2.7177	3.2279	3.2582	1812.2	0.9326
2.7177	3.2900	3.2582	1812.2	1.0760
2.7185	3.3364	3.2605	1821.8	1.1911
2.7210	3.2492	3.2674	1851.0	0.9589
2.7234	3.2878	3.2740	1879.5	1.0322
2.7243	3.3222	3.2765	1890.2	1.1110
2.7243	3.3522	3.2765	1890.2	1.1903
2.7259	3.3874	3.2809	1909.4	1.2779
2.7259	3.2741	3.2809	1909.4	0.9846
2.7259	3.3979	3.2809	1909.4	1.3093
2.7267	3.2304	3.2831	1919.1	0.8858
2.7267	3.2787	3.2831	1919.1	0.9900
2.7283	3.3222	3.2875	1938.7	1.0832
2.7292	3.3324	3.2900	1950.0	1.1026
2.7340	3.3010	3.3032	2010.1	0.9949
2.7340	3.3617	3.3032	2010.1	1.1442
2.7388	3.2787	3.3165	2072.6	0.9167

1	2	3	4	5
2.7388	3.3711	3.3165	2072.6	1.1338
2.7404	3.1761	3.3209	2093.6	0.7165
2.7404	3.3617	3.3209	2093.6	1.0986
2.7411	3.3304	3.3228	2102.8	1.0177
2.7411	3.4742	3.3228	2102.8	1.4171
2.7419	3.3655	3.3251	2114.0	1.0974
2.7427	3.3617	3.3273	2124.8	1.0824
2.7435	3.3284	3.3295	2135.5	0.9974
2.7443	3.3374	3.3317	2146.3	1.0134
2.7443	3.3617	3.3317	2146.3	1.0716
2.7443	3.3802	3.3317	2146.3	1.1182
2.7482	3.3253	3.3424	2199.9	0.9614
2.7482	3.3838	3.3424	2199.9	1.1000
2.7520	3.1973	3.3529	2253.7	0.6988
2.7520	3.3314	3.3529	2253.7	0.9518
2.7528	3.3979	3.3551	2265.2	1.1036
2.7543	3.3979	3.3593	2287.2	1.0930
2.7559	3.2041	3.3637	2310.5	0.6925
2.7559	3.2175	3.3637	2310.5	0.7141
2.7559	3.2304	3.3637	2310.5	0.7358
2.7559	3.3856	3.3637	2310.5	1.0517
2.7559	3.3979	3.3637	2310.5	1.0820

1	2	3	4	5
2.7566	3.5119	3.3656	2320.6	1.4066
2.7574	3.4031	3.3678	2332.4	1.0847
2.7597	3.3424	3.3742	2367.1	0.9294
2.7612	3.4232	3.3783	2389.5	1.1090
2.7634	3.3802	3.3844	2423.3	0.9903
2.7634	3.3944	3.3844	2423.3	1.0234
2.7634	3.3979	3.3844	2423.3	1.0316
2.7634	3.4757	3.3844	2423.3	1.2338
2.7649	3.4166	3.3885	2446.3	1.0669
2.7649	3.5441	3.3885	2446.3	1.4307
2.7664	3.4265	3.3927	2470.1	1.0809
2.7671	3.3892	3.3946	2480.9	0.9875
2.7708	3.3820	3.4048	2539.8	0.9489
2.7708	3.3979	3.4048	2539.8	0.9843
2.7708	3.4369	3.4048	2539.8	1.0768
2.7708	3.4624	3.4048	2539.8	1.1418
2.7745	3.3979	3.4151	2601.0	0.9612
2.7745	3.4579	3.4151	2601.0	1.1034
2.7752	3.4074	3.4170	2612.2	0.9781
2.7752	3.4099	3.4170	2612.2	0.9838
2.7760	3.4771	3.4192	2625.5	1.1426
2.7781	3.3802	3.4250	2660.8	0.9019

1	2	3	4	5
2.7781	3.4771	3.4250	2660.8	1.1275
2.7781	3.5211	3.4250	2660.8	1.2414
2.7789	3.5211	3.4272	2674.3	1.2414
2.7789	3.5465	3.4272	2674.3	1.3162
2.7817	3.3979	3.4349	2722.1	0.9184
2.7825	3.4594	3.4371	2736.0	1.0526
2.7853	3.3979	3.4449	2785.0	0.8977
2.7853	3.4150	3.4449	2785.0	0.9336
2.7853	3.4314	3.4449	2785.0	0.9695
2.7853	3.4393	3.4449	2785.0	0.9874
2.7853	3.4471	3.4449	2785.0	1.0053
2.7853	3.5623	3.4449	2785.0	1.3106
2.7875	3.4771	3.4509	2824.2	1.0622
2.7889	3.4065	3.4548	2849.7	0.8948
2.7889	3.4150	3.4548	2849.7	0.9124
2.7889	3.4393	3.4548	2849.7	0.9650
2.7889	3.4471	3.4548	2849.7	0.9825
2.7889	3.4983	3.4548	2849.7	1.1054
2.7896	3.5010	3.4567	2862.2	1.1075
2.7924	3.4297	3.4645	2914.1	0.9231
2.7924	3.4393	3.4645	2914.1	0.9437
2.7924	3.4471	3.4645	2914.1	0.9608

1	2	3	4	5
2.7924	3.4771	3.4645	2914.1	1.0295
2.7924	3.4548	3.4645	2914.1	0.9780
2.7931	3.5315	3.4664	2926.9	1.1616
2.7938	3.5224	3.4683	2939.7	1.1328
2.7959	3.3617	3.4741	2979.3	0.7720
2.7959	3.4471	3.4741	2979.3	0.9398
2.7959	3.4487	3.4741	2979.3	0.9432
2.7959	3.4624	3.4741	2979.3	0.9734
2.7959	3.5688	3.4741	2979.3	1.2436
2.8129	3.3802	3.5211	2319.8	0.7229
2.8129	3.3892	3.5211	3319.8	0.7380
2.8129	3.5119	3.5211	3319.8	0.9790
2.8261	3.5441	3.5575	3610.0	0.9695
2.8543	3.7781	3.6354	4319.2	1.3891
2.9111	3.9542	3.7922	6197.3	1.4522
2.9201	3.9294	3.8170	6561.5	1.2954
2.9474	4.0086	3.8924	7805.5	1.3056
2.9652	4.0414	3.9415	8739.8	1.2586

TABLE - 2

Regression analysis of log length-log weight relationship in *Ctenopharyngodon idella* from two different environments and their pooled values.

Source	n	\bar{x}	\bar{y}	$\sum xy$	$\sum x^2$	$\sum y^2$	$\sum x \sum y$	a	b	r
Lampbel Fish Farm, Imphal (Manipur)	164	2.5303	2.6612	1119.9385	1058 5480	1239.4667	181115.0431	-3.4535	2.4166	0.6953
Barasagardi- ghi, Malda (West Bengal)	158	2.7368	3.3110	1433.4131	1184.0719	1782.4485	226220.0851	-4.2445	2.7607	0.3001
Pooled	322	2.6317	2.9801	2553.3716	2242.6199	3021.9152	813158.6446	-2.9057	2.2365	0.6217

TABLE—3

Analysis of covariance, linear regression of logarithm of length and weight, to test the significance of difference between the Lamphel Fish Farm and Barasagardighi in *Ctenopharyngodon idella*.

Group	Degree of freedom	$\sum x^2$	$\sum xy$	$\sum y^2$	$\sum y^2 - (\sum xy)^2 / \sum x^2$	Degree of freedom	Mean square	Observed F	Re-marks
Lamphel Fish Farm	163	8.5140	15.5985	77.9700	49.3920	162			
Barasagardighi	157	0.5940	1.6404	50.2883	45.7582	156			
Total	320	9.1080	17.2389	128.2583	95.1502	318	0.2992		
					95.6299	319	—		
Difference for testing hypothesis : Lamphel Fish Farm = Barasagardighi									
					0.4797	1	0.4797	1.6033	NS

TABLE - 4

Condition index in different weight groups of *Ctenopharyngodon idella* from two ecosystems,
Lamphel Fish Farm and Barasagardighi

Fish weight group in gm	Kn value						Remarks
	Lamphel Fish Farm			Barasagardighi			
	No. of obser- vations	Range	Mean	No. of obser- vations	Range	Mean	
Up to 1,000	115	0.3546 - 1.2472	0.8566	16	0.5840 - 0.9128	0.7322	Mean Kn value calculated on the entire observa- tions for each ecosystem, i) Lamphel—1.0605 ii) Barasagar- dighi=1.0106
1,001—2,000	8	1.1484—1.4779	1.2832	53	0.6873—1.3237	0.9885	
2,001—3,000	9	1.3623—1.6239	1.5502	71	0.7229—1.5303	1.0434	
3,001—4,000	25	1.3643—1.7935	1.4812	13	0.9695—1.4307	1.2036	
4,001—5,000	—	—	—	—	—	—	
5,001—6,000	3	1.4484—2.1505	1.7868	—	—	—	
6,001—7,000	—	—	—	—	1.3891	1.3891	
7,001—8,000	—	—	—	—	—	—	
8,001—9,000	2	2.1194—2.3590	2.2392	2	1.2954—1.4522	1.3738	
9,001—10,000	—	—	—	—	—	—	
10,001—11,000	2	2.1339—2.1847	2.1593	2	1.2586—1.3067	1.2826	

BIOLOGY OF FISHES.
V. THE LENGTH-WEIGHT RELATIONSHIP AND
CONDITION INDEX OF *OSTEOBRAMA*
BELANGERI (PISCES : CYPRINIDAE)

S. L. CHONDAR

INTRODUCTION

The objectives of length-weight relationship study of a fish have many practical applications in the field of fishery science. The population dynamics of a species in a water body and its taxonomic problem (Speire, 1952) can be made known out of this study. The mathematical expression of the length-weight relationship has been found essential for conversion of catch statistics from weight to numbers to get the abundance of stock in a space and time. The condition index of the length-weight relationship is to assess the degree of the well beings of the fish or otherwise the general condition of the eco-system indicating suitability of population in a particular environment.

Osteobrama Heckel, a synonym of *Rohtee* Sykes, includes many species. A few of them only are of commercial values, of which *Osteobrama belangeri* (Valenciennes) forms a common freshwater fishery of Manipur (India), Burma and Yunnan. A medium-sized cyprinid attaining a maximum length of about 320 mm, it is considered to be an important culturable species also. In Manipur, it is popularly known as 'Pengba' and it has a high market value. But due to unknown reasons, the fish is loosing fast its appearance in the commercial catches from its natural riverine habitat. For proper conservation of this species detail biological studies are felt essential on priority basis. No elaborate work on the biology of this fish from Indian environment seems to have so far been made. The present study, a part of its biology, covers the length-weight relationship and

condition index of *Osteobrama belangeri* as the fifth paper of this series.

MATERIAL AND METHODS

Sixty-three specimens of *O. belangeri* from Wangbel Fish Seed Farm (Imphal, Manipur) were utilised for this study. The size groups of the specimens were 122-315 mm in total length and 20-340 gm in weight. The total length whereas measured on the conventional fish measuring board was rounded to minimum a millimeter and the weight taken in a laboratory physical balance was recorded nearest to 0.2 grammes.

For mathematical analysis of the length-weight relationship of the species, the observed lengths and the weights of the individual specimens were first converted into log values, and then fitted into the linear form ($\log W = a + b \log L$, where W = weight, L = Length, 'a' and 'b' constants) of the Allometric Law ($W = aL^b$) to find out an empirical equation of the relationship. The values of the constants 'a' and 'b' were calculated employing the following formulae:

$$b = \frac{n \sum xy - \sum x \cdot \sum y}{n \sum x^2 - (\sum x)^2}, \text{ and } a = y - b\bar{x}$$

The correlation coefficient of the relationship has been estimated using the formula,

$$r = \frac{n \sum xy - \sum x \cdot \sum y}{\sqrt{n \sum x^2 - (\sum x)^2} \sqrt{n \sum y^2 - (\sum y)^2}}$$

The condition indices of individual specimens have been worked out dividing the observed weights of the fish by the antilog of calculated weights (Table 1).

RESULTS

The statistics for regression (Table 2) of logarithm of weight on logarithm of length worked out with a general equation for the species as :

$$\log W = -4.5952 + 2.8456 \log L,$$

showing a high degree of correlation coefficient ('r' = 0.9627) between the two variables (Fig. 1).

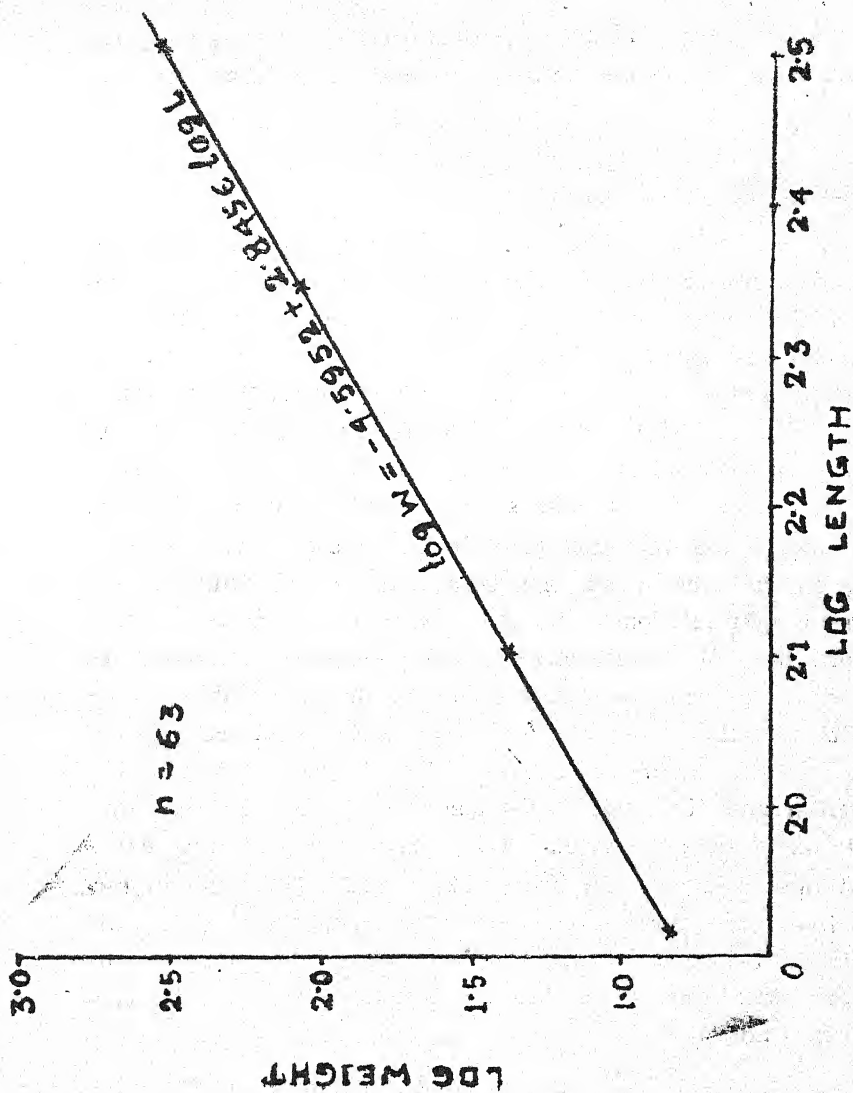


Fig. 1—Log length-log weight linear relationship in *Osteobrama belangeri*.

The 't' test ($t=1.47533$) resulted non-significant departure in the exponent value (2.8456) from 3.0 of the empirical cube law of the length-weight relationship.

The condition index ('Kn') of the test materials has been estimated as minimum 0.9107, maximum 1.1852, and average 1.0002.

DISCUSSION

In the mathematical expression of the length-weight relationship of a fish, normally either the cube law ($W=L^3$) or the allometric law ($W=aL^b$) is applied. In the cube law, the weight of an individual fish equals to the cube of the length, where 'a' remains constant and the exponent value is 3.0 (Spencer, 1931 ; Frazer, 1941 ; Foerster, 1936). Allen (1938) stated the exponent value as 3.0 which when maintains a uniform shape and specific gravity throughout the life. But this state of condition of an individual fish does not always hold good in the nature. The allometric law, on the other hand, has been found better fitting in the length-weight relationship for the reasons that it may vary within a wide limit for a little change in the taxonomic conditions of the fish or in the biological events of the environment. Hile (1936), Martin (1949) and Le Cren (1951) expressed that 'b' value in the parabolic equation lies between 2.5 and 4.0. Beverton and Holt (1957), Chondar (1972, 1975, 1986, 1989) and many others (Antony Raja, 1967) recorded the exponent value highly varying from 1.88 to 5.53. Thus, the allometric law is considered to be superior to the cube law. The wide variation in the exponent value are due to variations in the general well beings of the fish or seasonal changes in the ecosystem (Chondar, 1975).

In the present study, the exponent value which has been calculated as 2.8456 for *O. belangeri* of the Wangbel Fish Seed Farm of Manipur, supports once again the allometric law. The exponent value, however, when statistically treated showed the non-

significant deviation from 3.0 ($S_b = 0.1046545$, $t = 1.47533$ at 58 degrees of freedom).

The relative condition index (Le Cren, 1951) has been found better suited here than the ponderl index which later assumes the cube law. The 't' test of the average value of the condition index, 'Kn' = 1.0002, in *O. belangeri* ($S_b = 0.9996277 - 0.0003228$, $t = < 2.0000$) indicates the non-significant departure from the normality (1.0) in the growth of the fish. In other words, it can be inferred with the remark that the general health of the Wangbel *belangeri* was normal. Therefore, through well farming and artificial propagation its population can be saved from extinction from its natural riverine habitat.

ACKNOWLEDGEMENTS

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TABLE-1

Computation of length-weight relationship and condition index of
Osteobrama belangeri

log Length	log Weight	$\log W = a +$ $b \log L$	Antilog of calculated value of log W	Condition index Kn
1	2	3	4	5
2.0863	1.3010	1.3416	21.96	0.9107
2.0863	1.3117	1.3416	21.96	0.9335
2.0899	1.3222	1.3518	22.48	0.9342
2.0969	1.3424	1.3717	23.53	0.9350
2.0969	1.3522	1.3717	23.53	0.9562
2.1004	1.3522	1.3817	24.08	0.9344
2.1038	1.3617	1.3914	24.62	0.9342
2.1072	1.3711	1.4010	25.18	0.9333
2.1106	1.3892	1.4107	25.75	0.9514
2.1140	1.3979	1.4204	26.33	0.9495
2.1140	1.4065	1.4204	26.33	0.9685
2.1172	1.4232	1.4295	26.88	0.9859
2.1206	1.4393	1.4392	27.49	1.0004
2.1271	1.4548	1.4577	28.69	0.9934
2.1303	1.4624	1.4668	29.30	0.9898
2.1303	1.4771	1.4668	29.30	1.0239
2.1335	1.4771	1.4759	29.92	1.0027
2.1335	1.4914	1.4759	29.92	1.0361

1	2	3	4	5
2.1335	1.5051	1.4759	29.92	1.0695
2.1399	1.5051	1.4941	31.20	1.0256
2.1461	1.5185	1.5117	32.49	1.0157
2.1461	1.5315	1.5117	32.49	1.0465
2.1461	1.5378	1.5117	32.49	1.0619
2.1492	1.5378	1.5205	33.15	1.0407
2.1553	1.5502	1.5379	34.51	1.0287
2.1584	1.5623	1.5467	35.21	1.0366
2.1584	1.5682	1.5467	35.21	1.0508
2.1644	1.5740	1.5638	36.63	1.0237
2.1644	1.5855	1.5638	36.63	1.0510
2.1673	1.5798	1.5721	37.33	1.0179
2.1761	1.6075	1.5971	39.55	1.0240
2.1761	1.6180	1.5971	39.55	1.0493
2.1818	1.6232	1.6133	41.04	1.0234
2.1818	1.6284	1.6133	41.04	1.0356
2.1847	1.6284	1.6216	41.84	1.0158
2.1903	1.6335	1.6375	43.40	0.9908
2.1903	1.6434	1.6375	43.40	1.0138
2.1959	1.6513	1.6534	45.02	0.9951
2.2014	1.6532	1.6691	46.68	0.9640
2.2068	1.6628	1.6845	48.36	0.9512

1	2	3	4	5
2.2068	1.6702	1.6845	48.36	0.9677
2.2148	1.7160	1.7072	50.96	1.0204
2.2201	1.7324	1.7223	52.76	1.0235
2.2279	1.7404	1.7445	55.53	0.9904
2.2430	1.7781	1.7875	61.31	0.9786
2.2430	1.7889	1.7875	61.31	1.0031
2.2455	1.7853	1.7946	62.32	0.9788
2.2528	1.7924	1.8154	65.37	0.9484
2.2528	1.8062	1.8154	65.37	0.9790
2.2601	1.8129	1.8361	68.56	0.9481
2.2601	1.8195	1.8361	68.56	0.9627
2.2648	1.8261	1.8495	70.71	0.9475
2.2672	1.8388	1.8563	71.83	0.9606
2.2765	1.8512	1.8828	76.35	0.9299
2.2810	1.9191	1.8956	78.63	1.0556
2.3802	2.2041	2.1779	150.63	1.0622
2.4183	2.3010	2.2863	193.33	1.0345
2.4502	2.4150	2.3771	238.29	1.0911
2.4594	2.4771	2.4033	253.11	1.1852
2.4983	2.5315	2.5140	326.59	1.0411

TABLE-2

Statistics for regression of log length-log weight relationship
in *Osteobrama belangeri*

n	$\sum x$	$\sum y$	$\sum x^2$	$\sum y^2$	$\sum xy$	$\sum x \cdot \sum y$	\bar{x}
60	131.6359	98.8682	289.3149	167.4127	218.3748	13014.6045	2.1939

\bar{y}	a	b	r
1.6478	-4.5952	2.8456	0.9627

ORNAMENTS IN RAJASTHAN

A. K. SAXENA

On one side, the people of Rajasthan have been worshippers of the sword and on the other they have been worshippers of beauty. They believe that bravery doesn't lie in hard-hearted cruelty only but it also appears in delicate smiles of cherryblossoms. This fact is revealed in the study of customs, rituals and art and culture of Rajasthan. They have adorned their weapons with exquisite and delicate designs and they have also decorated their bodies with gay colour dresses and beautiful ornaments of gold and silver and other precious stones.

Generally, it is seen that only ladies are more interested in jewellery but here men and women have shown equal interest in wearing ornaments. Let us start from a description of ornaments used by men.

First of all kings and rulers used a '*Kalangi & Turra*' in their turbans (Head-gear). '*Turra*' was made of a tuft of golden threads and in the centre of '*Turra*' there was a '*Kalangi*' made of golden threads, pearls or diamonds. This '*Kalangi*' was in the shape of inverted 'U'. After '*Kalangi*' & '*Turra*' another ornaments of head-dress is '*Sarpech*'. This '*Sarpech*' was an ornament which was not used by common folk. It was used by rulers and nobles of the first-order. The '*Sarpech*' was an ornament of gold studded with diamonds. Its base was flat with rubies and emeralds suspended from it. On the top there were three or five peaks. The '*Sarpech*' with five peaks was used by rulers only. The '*Sarpech*' with three peaks was used by nobles. Common

* In this article an attempt is made to describe ornaments used generally in Rajasthan and particularly in Bundi. This article also covers those ornaments which have become obsolete and gone out of fashion.

people used a small tilted belt of jewels on their turban. This fashion was prevalent in Mewar.

Then we come to the ornaments for ears. There were mainly three ornaments—'*Kundals*', '*Murkies*' and '*Jhelas*'. '*Kundals*' were also called '*Tungals*'. They were in the form of golden rings of about one and half an inch in diameter. In the lower part there was a bead of precious stone. '*Murkies*' were two small thick rings of gold about half an inch diameter. From these '*Murkies*' there was a small ribbon of gold chain going to top of the ear. In the upper part of this ribbon there were rectangular precious stones of red or green colour. This ribbon was approximately three quarters of an inch in width. It was called '*Ghela*'. Some other people used small button-like ornaments in their ears. These were called '*Longs*'. They were studded with red or white jewels.

Now we come to the neck. The aristocrats used a neck ornament called '*Gop*'. This was a heavy piece of gold weighing sometimes from 100 to 200 grams. This ornament was made of two strings of gold approximately three-eighths of an inch diameter. It had a buckle in the front which was also covered with a precious stone. Round the neck, people also used various other ornaments called '*Kantha*' or '*Kanth-Har*'. These were made of pearls, diamonds, '*Panna*', etc. These ornaments were of various lengths—sometimes dangling upto the middle of chest.

There was a particular ornament called '*Sugam Silah*'. This was used on shoulders and it was a decorated golden plate which besides being decorative piece also functioned as a shield. It was of two types. One was a plain plate and other had a small '*Kalangi*' over it. '*Sugam Silah*' with '*Kalangi*' could be used by rulers and chief commanders only. Commanders of lower order used '*Sugam Silah*' without any '*Kalangi*'. Wherever plates and chains are mentioned, plates were not plain sheets of metal. They bore exquisite designs of flowers, leaves, etc. and wherever chains

are mentioned, chains were also delicately worsted of fine golden threads. '*Sugam Silah*' and other ornaments like the '*Sarpech*' etc. which were symbols of honour and chivalry have now disappeared with abolition of states. People also used golden and silvern buttons for coats and shirts. These buttons were also fine pieces of art.

On the arms above elbow a particular ornament called '*Bhuj-Bandh*' was used. This was also made of gold. On the wrist males didn't use many ornaments. They simply used golden rings called '*Kadas*'. Around the waist ornaments were not used by men.

Now we come to ornaments used by women. The first and foremost ornament for head was '*Rakhadi*' called '*Chudamani*' in classical literature. There were various forms of this ornament. Some '*Rakhadis*' were as big as 2 inches in diameter. '*Rakhadies*' were of two types—one '*Ghundi-ki-Rakhadi*' i.e. '*Rakhadi*' of button type. This had a flat surface in the front and this surface was covered with shining white jewels in a floral pattern. In the centre it had a blue ring around a white jewel. The other type '*Rakhadi*' was of spherical shape. In the centre of the front-half of the sphere, there was a circular jewel of white colour encircled by a ring of blue colour. Around this blue ring there were six petals in which jewels of green and red colour were alternately studded. It was called '*Chunni-ki-Rakhadi*'. In both types of '*Rakhadies*' pearls, real or artificial, were strung around these designs. People of lower caste used a head ornament called '*Bore*'. It was of elongated spherical designs. In the centre of the front there was a red or green jewel approximately $\frac{1}{4}$ of an inch diameter. People of very lower orders used '*Bore*' made of silver. Around the central jewel it was decorated with small round grains embossed in the metal itself. '*Rakhadies*' and '*Bores*' are still prevalent. Another head ornament which has become obsolete was '*Bendi*'. These were two chains of gold or silver having three rows of small belt called '*Ghungharus*'. This

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'Bendi' has now been replaced by a new ornament called 'Singar Patti'. This is a ribbon of flat gold pieces of round or rectangular shape with beautiful designs on each piece.

Then we come to ears. Women of old, got the upper lobes punched and put on golden rings with dangling golden leaves. They were called 'Pepal Pattas'. The ornament has now become obsolete in young ladies. Some old ladies may still be seen wearing this ornament. In the lower lobe of the ear various ornaments are used. One was called 'Gutties'. This was a circular shape and the front circle of this ornament had some designs embossed on it. These 'Gutties' has now given place to 'Tops', 'Earrings' and 'Balies'. The other ornament of the ear is 'Jhumaka'. This 'Jhumaka' is mentioned in a cinema song—'Bareli-ke-bazar men Jhumaka Gira re' (Film—'Mera Saya'). This 'Jhumaka' consists of two parts. The upper part is like a flower and from this flower is suspended a bell shaped piece. Both these pieces are studded with coloured jewels. In the lower part of this bell-shaped piece small beads of gold or small pearls were suspended.

In the nose three or four types of ornaments are used. First and foremost is 'Nath'. This is a golden ring from $1\frac{1}{2}$ to $2\frac{1}{2}$ inches in diameter. In the upper part of this ring there is a hook with which it is held close to the nose. Approximately $\frac{5}{8}$ th of the rest of circle is filled with designs made either in gold lattice work or pearls. In these designs sometimes shapes of birds, specially peacock, is adopted in 'Mordi-ki-Nath' which is very popular among ladies of Rajasthan. A string of pearls gives support to this ornament and shifts the major part of this ornament on the ear. The other ornament of nose is 'Bhanwarkya'. This is a piece of gold in the centre of which a red or white gem is studded. Around this gem six pearls are tied in sockets specially provided for these pearls. These pearls are $\frac{1}{8}$ th to an inch in diameter. The third ornament is 'Pheeni'. This is a small version of 'Bhanwarkya'. In it the central jewel

is of small size and all around it. There is a circle of golden grains. The size of this ornament is approximately $\frac{3}{8}$ of an inch. Even smaller than '*Pheeni*' is '*long*'. This is a simple ornament in which a red or white jewel of about $\frac{1}{8}$ of an inch diameter is studded. '*Bhanwarkya*', '*Pheeni*' and '*Long*' are worn in nose by means of a small golden wire hook which is threaded into small hole made in nose for this very purpose. It is to be noted that '*Nath*' and '*Bhanwarkya*' are used by married ladies only as an honored symbol of conjugal bliss and that too when the husband is alive but '*Long*' or '*Pheeni*' may be used by virgins or ladies of all orders.

From the nose we come to the neck. Some type of ornament—it may be cheapest—was regarded essential for married ladies. The poorest of them used a '*Janjeera*' or '*Kanthi*' made of '*Pots*' i.e. very small coloured beads of glass. One ornament which has now become totally obsolete is '*Jamania*'. 'This was a solid bar of gold about four or five inches long. On this rod there were cuttings of various shapes and the faces of these cuttings were engraved with beautiful designs. This '*Jamania*' was hung around the neck with many small strings in which glass beads were threaded.

Now-a-days this '*Jamania*' has given place to other new ornaments. One is called '*Kanthi*'. This is made of small six-petalled flowers of gold called '*Phullies*'. In the centre there is a crescent shaped piece and on the both sides of this piece there are '*Phullies*' numbering 6, 7 or 8 on either side. Another ornament is '*Bajanti*'. This is made of three rows of golden beads. Then we come to necklaces and '*Hars*'. These are of various designs and may be seen around the necks or on the breast of ladies very frequently.

On the arms ladies use various ornaments. One above the elbow the ornament used called '*Baju Bandh*'

or '*Baju*'. This was an ornament about two inches width or 4 or 5 inches long. It was made of thin gold or silver bars to make it flexible. The other ornament is '*Tadda*'. This is spiral shaped. Very rich people made it of solid gold otherwise it was made of copper rods gilt with golden plates. Then we come to the wrist. Many ornaments were made for the wrist such as '*Poonch*' or '*Pahunchi*', '*Gokharu*', '*Bajari*', '*Borya*', '*Patala*', '*Chudies*' or bangles, etc. To decorate hands, bangles or '*chudies*' of ivory were frequently used especially by *Rajput* and *Dadhich* ladies. These '*chudies*' were put on not only in the forearms but also above the elbow and it was called '*Khench*'. This '*Khench*' was prevented from dropping down by '*Baju Bandh*' or '*Tadda*' or a peculiar ornament called '*Mandaliya*'. This '*Mandaliya*' has now become obsolete. This '*Mandaliya*' was made of two silver or golden tubes soldered together. The open ends of these tubes were closed by conical-shaped pieces, terminating in small balls at the peak point. '*Panhunchi*' was made of parallelogrammed pieces of gold or silver. These pieces were arranged in 4 or 5 rows and were woven with silk thread. After '*Panhunchi*' another ornament was '*Bajari*'. It was a large bangle of gold or silver from the outer rim of which spikes shot-out and these spikes bore small balls of gold around its outer rim. '*Boryas*' were again made of half spherical pieces of gold. These spherical pieces were woven in two rows to fit the wrist. It is to be noted that in ear or nose only one ornament was used at a time but the neck and the wrist was always loaded with very many ornaments at one and the same time. There is one interesting anecdote connected with wearing these heavy ornaments. Once a '*Seth*' asked his wife to hand over a *Pansery* (An iron piece to weight 5 *Seers* which is equal to approximately $4\frac{3}{4}$ Kg). Wife refused to do it on the ground of her delicacy. *Seth* remained silent. After a few days he asked a goldsmith to gild that *Pansery* with gold-plate and attach gold-chains to it to hang it to his wife who was very happy to wear it on her breasts. Again, after some days he asked her to hand

over a *Pansery* and again, the *Sethani* refused saying that she was too delicate to lift the weight. At this, the *Seth* scolded her saying—'You devil! You are always wearing this *Pansery* on your chest and now you refuse to lift it'. *Sethani* told that she was wearing a heavy ornament only. *Seth* took that ornament from her, removed the golden plate and showed her the *Pansery*. *Sethani* was so ashamed that she could not say any thing more. *Patalas* are new fashioned ornaments for the wrist. They are of flat and white designs and they are used either alone or with golden *Chudies*. In old literature, we also hear about an ornament called—'*Noghari*'. This was an ornament for the wrist and was studded with precious gems.

Then we come to the palm. The front side of the palm was decorated with designs in '*Mehandi*' while for the back portion of arm was a circular shape ornament fixed with chains on fingers and around the wrist. In fingers, the people have always been fond of using rings. Generally, rings were used by men on the small finger but ladies are not satisfied by using only one or two rings. They cover all their fingers with rings. They don't want to leave even their thumb uncovered if they can get a ring for it.

Then we come to the waist. On the waist, ladies use an ornament called '*Kardhani*' or '*Kanagati*'. This is an ornament made of very small rings connected in interlinked a chain. There are two or more of such chains. Number of these chains go up to five. '*Kanagati*' of two chains are soldered at one end and fixed around waist with a 'S' shaped device called '*Maroda*'. '*Kanagaties*' with five chains are fastened by a buckle in girdle like fashion. These '*Kanagaties*' are made of silver as well as of gold.

Now we come to ornaments for the lower part of the leg near the ankle. Ladies cover their legs with very heavy ornaments. It seems that man has cunningly induced them to wear

these heavy ornaments so that they might not easily run away and if they tried to abscond or run away they may be easily caught. The total weight of the ornaments over the ankles sometimes goes up to 5 Kg. while weight upto 2 Kg. is almost normal. On the legs above ankles, old ladies wear a set of ornament called '*Jodhpuri Jod*'. In this '*Jod*' there are 7 or 5 rings for each leg. The names of these rings are as follows—1. '*Kadies*', 2. '*Nevary*', 3. '*Heeranami*', 4. '*Anwalas*' and 5. '*Tanaka*'. All these ornaments were made of heavy silver tubes approximately half an inch diameter and some grains of metal, called '*Runas*', were put in these tubes so that they may produce a sweet jingling sound. '*Kadi*' was just plain ring. '*Anwala*' was a ring with oblique parallel cuttings. On '*Nevary*' cutting of small elliptical shapes were made outside alround the ring. '*Tanaka*' had straight parallel cuttings. '*Heeranami*' also had designs of some different type. Average weight of each ring was about 200 grams. Below this set, ladies put on an ornament called '*Chagal*'. A pair of '*Chagales*' weighted approximately 500 grams. They were not satisfied with this load only. Below the '*Chagal*', they used '*Paijeb*' or '*Payals*'. '*Chagal*', '*Paijeb*' and '*Payal*' had small silvern bells of or '*Ghunghrus*' which produce very sweet sound. There was one more ornament. This was called '*Ramjhal*'. This was also a piece of ornament with '*Ghunghrus*' attached to it. In royal family of Bundi, it was called '*Chaurasi-ka-Baja*'. Ladies of royal family were forbidden to wear this ornament by some '*Saties*' and probably this is the reason why '*Ramjhal*' went out of fashion and became obsolete. '*Kadi*' is regarded as the most essential for any lady and no lady in '*Rajasthan*' will be seen without a '*Kadi*'. Those who can not afford any silvern ornament will wear '*Kadies*' of some base-alloy. In old ornaments for legs was '*Todi*' or '*Todia*' or '*Suntara*'. This was an ornament with silvern bars entwined in figure '8' shape. Now this ornament can be rarely seen. Though some old ladies of lower caste may still be found using it.

Now we come to the ornaments for the toes. Some people wear silver rings in toes and it is believed that it has a therapeutical value to prevent pain in stomach from '*Dharan*' or '*Gola*' and so some men may also be seen wearing copper or silver rings on their toes and those who don't want or are unable to put on silver rings tie strong thin strings around toes. Ladies use '*Bichhiyas*' or '*Pholaries*' in II, III and IV toes of their feet. These '*Bichhiyas*' are essential for any married lady whose husband is alive. These three '*Pholaries*' are connected with small silver chains and are decorated with small silver '*Ghunghrus*'. Those who don't want to use three '*Pholaries*' at least wear one '*Pholary*' called '*Bichhiya*' or '*Chutaki*' in the second toe of their feet. Besides, this '*Pholary*' names of other ornaments are mentioned in old literature, one is '*Anvat*' which was an ornament studded with jewels. It may be mentioned that ladies of royal family used golden ornaments in their legs while all other ladies of upper classes use silver ornaments in their legs. Ladies of the still lower order of society used ornaments of some cheaper alloy and they were called '*Sutadas*'. The '*Sutada*' ornaments were not made by gold or silver smiths. They were prepared by people called '*Bharavas*'. This profession has declined and now it is very difficult to see '*Bharavas*' making these ornaments.

This is a short description of ornaments for men and ladies in Rajasthan. If we go into the details, various other ornaments may also come in light. Why ladies became so fond of ornaments and why men so bountifully decorated or rather burdened them with heavy ornaments even in financial difficulties is really a problem to answer. On answer was the feeling of people that these ornaments are—'*Dhaya-ko-Mandan*' or '*Bhukha-ko-Adan*' that is decoration for the well placed and a source of help for people in need and distress. There is also an interesting story which runs as follows—In very very old days some men saw a creature. They were attracted to it as natural. But they found that this creature was very aggressive and offensive. So they

caught hold of it, punched its nose, ears and lips and put rings in the holes to tame and control it and in order to safe-guard it from running away. They put very heavy rings around its neck, arms, wrists and legs of that creature. When that creature became tame and controlled, they made those rings of gold and silver so that the creature may not feel insulted or may feel rather flattered. This creature was the lady.³

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1. Bundi Archives.
2. Sati indicates a scared custom in Hindus. The woman after the husband's death commits herself to fire and dies there. This kind of death is grounded on the concept that she had been faithful to her husband and she will accompany him in heaven also. After this burning, people build some monument in the name of that lady, who is called—'Sati'. There the women come to worship and beg for conjugal bliss.
3. I thankfully acknowledge that this article is based entirely on the information given by Prof. Bal Gangadhar, Retired P. G. Head in Hindi R.R. College, Alwar who is a resident of Bundi.

CLASSIFICATION OF ANIMALS IN ANCIENT INDIA

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The present contribution embodies the account of knowledge of ancient scholars concerning classification of animals as recorded in ancient Sanskrit literature. Four major works on classification of *Pāṇini's* classification, *Manu's* classification, *Umāsvāti's* classification and *Carak* and *Śuśruta's* classification, have been taken into account for discussion.

INTRODUCTION

Long before the dawn of the era of history, man had a practical knowledge of animals and their lives. The ruins of the Indus Valley civilisation, roughly dating back to a period round about 3000 B.C. bear eloquent testimony to the awareness about the popular knowledge of certain animals. Besides figures of common animals like elephants, the tiger, the rhinoceros, the buffalo, the deer, the Indus Valley artists produced figures of obviously fantastic creatures (e.g. the unicorn), which supported the concept that the man had a fairly good amount of knowledge on animals.

The present article deals with the classification of animals in Ancient India with a brief introduction to modern concept of animals classification. For a knowledge of the classification of animals in Ancient India one has to turn to recorded evidence of such knowledge in the *Vedas*, *Saṃhitās*, *Upaniṣads*, *Smṛtis*, *Sūtras* and other works. Thus, the present contribution is based on the ancient Sanskrit literature.

Before dealing with the faunal studies contained in Sanskrit works it should be noted that the word '*jantu*' means any creature

which needs air for survival—(*Manu-Smṛiti* III. 77). In *R̥gveda*, even a man is called *jantu* (Rv. 1.45.8).

The *R̥gveda*, the earliest written record of not only the Indians but also of the Indo-Europeans, is replete with references to beasts (Ghildial-Sharma and Sharma 1984) and birds (Ghildial and Sharma 1986). However, the broad classification of animals based on their habits such as *Vāyavyo* (living on air), *aranya* (wild), and *grāmya* (tame or domestic) during *R̥gvedic* period was vague.

Before discussing the contribution on classification of animals made by ancient Indian scholars, it is necessary to provide some introduction to modern concept of animal taxonomy and its brief history. The earliest attempt to make a systematic classification was made by an Englishman, John Ray (1627-1705). Karl Von Linne (1707-1778), a Swedish scholar, is the real founder of the science of taxonomy. In 1735, he published a book, *Systema Naturae*, the tenth edition of this book, published in 1758, is still the basis of the modern system of classification. He formulated six classes of animals—(i) Quadrupeds (four legged animals), (ii) birds, (iii) reptiles, (iv) fish, (v) insects, and (vi) worms. Around 1800, the French naturalist George Leopold Cuvier (1769-1832), added a more general category, the *phylum*, which includes all classes of animals with a general body plan. Ernst Heinrich Heckel (1834-1919) and E. Ray Lankester (1847-1929) outlined the principal features of the animal classification which are in use today.

According to modern concept of animal classification which is universally accepted, all the animals are divided into two large groups—(i) Chordata and (ii) Non-chordata. In some animals, at some stage of their life, a rod like structure is found, which is known as the *notochord*. Those animals which possess this structure are called *chordates* such as fish, frog, snake, birds, monkey, etc.,

while those which do not possess it are known as *non-chordates* e.g. sponge, tapeworm, housefly, mosquito, earthworm and snail, etc. The animals of each group are again divided into *phyla* on the basis of some specific characteristics. The following are the main *phyla* of *non-chordata* :

1. *Protozoa*. Acellular or unicellular organisms such as *amoeba*, *Paramecium*, etc.
2. *Porifera*. Animals with pores on body, e.g., sponges, etc.
3. *Coelenterata*. Animals with radial symmetry and a coelenteron, e.g. Sea fur, Corals, Sea anemone, etc.
4. *Platyhelminthes*. Acoelomata animals without a body cavity, e.g. Liver fluke, Tapeworm, etc.
5. *Aschelminthes*. Animals without a true coelom (body cavity) but with a pseudocoelom, e.g. Roundworm, etc.
6. *Annelida*. Segmented animals with a tubular alimentary canal, e.g. Earthworm, Leech, etc.
7. *Arthropoda*. Animals with jointed appendages, e.g. House fly, mosquito, etc.
8. *Mollusca*. Soft bodied forms with shell, e.g. snail, mussel, cuttle fish, etc.
9. *Echinodermata*. Spinny skinned animals with radial symmetry often star shaped, e.g. Star fish, Sea lily, etc.

Chordates are placed under Phylum-Chordata, which comprises lower chordates (without a vertebral column) and higher chordates or vertebrates (with a vertebral column). Lower chordates are all marine and consist of the following three sub-phyla:

1. *Hemichordata*. In these animals notochord is not well developed and found in incipient stages ; e.g. Acorn worm.

2. *Urochordata*. Notochord is present in larval stages only. The body is enclosed in a test. e.g. Sea squirt.
3. *Cephalochordata*. Small fish like marine animals with a notochord extending from head to tail, e.g. Lancet, etc.

Higher chordates are numerous and consist of animals such as fish, frog, snake, pigeon, dog, etc. which are quite different from each other. These animals are divided into six different classes.

1. *Cyclostomata*. These animals are without jaws but have a round and sucking mouth ; e.g. Lampreys.
2. *Pisces*. It includes all types of fishes.
3. *Amphibia*. It comprises of animals which can live in water and on land both ; e.g. Frog, Toad, etc.
4. *Reptilia*. Animals which move on their belly ; e.g. Lizzards, Snakes, Turtle and Crocodile.
5. *Aves*. Animals having feathers. All the birds are placed in this class : e.g. Pigeon, Fowl, House sparrow, etc.
6. *Mammals*. The animals having hairs on their body and mammary glands to suckle their young ones ; e.g. Rabbit, Dog, Monkey, Man, etc.

Classification of Animals in Ancient India

Some major works in ancient India related to the classification of animals are of the following four ancient workers :

1. *Pāṇini's* classification.
2. *Manu's* classification.
3. *Umāsvāti's* classification.
4. *Carak* and *Sūśruta's* classification.

PĀNINI'S CLASSIFICATION :

Pāṇini, a pioneer Sanskrit scholar in his *Aṣṭādhyāyī* (4th century B.C.), broadly divides creatures into two classes, viz., Animate (*prāṇin*—IV.3.135,154; also *prāṇbrat*—V.1.129) and Inanimate (*aprāṇin*—II.4.6, V. 4.97). These two called respectively *Cittavat* (V.1.89) or that which has mind, and *Acitta* (IV.2.47) or that which is devoid of mind. The animate beings are subdivided into human beings (*Manuṣya*—IV.2.134) and animals (*Paśu*—III.3.69). Animals are classified as rural or domestic (*grāmya*—I.2.73) and wild (*aranya*—IV.2.129). There are minor sub-divisions of animals too, e.g. *Kṣudra-jantu* (II.4.8) according to size, and *Kravyād* (III.2.69) or that which are carnivorous.

MANU'S CLASSIFICATION :

The *Manu-Smṛti* (between 200 B.C. and 200 A.D.) broadly divides worldly objects into *Sthāvara* (non-moving) and *jaṅgama* (moving). There is a broad division (MS. 1.43.45) of the *jaṅgama* into *jarāyuja* (viviparous), *aṇḍaja* (oviparous) and *svedaaja* (born out of sweat). The first class comprises human beings and beasts. To the second class belongs birds, serpents, crocodiles, fish, tortoises. The creatures of this class are sub-divided into *Sthalaj* (terrestrial-growing on land) and *audaka* (aquatic). *Svedaaja* are flies, mosquitoes, lice, bugs and ants which are born out of heat, as these are quite visible during summers.

UMĀSVĀTI'S CLASSIFICATION :

A fairly exhaustive classification of animals is found in *Umāsvāti's Tattvārthādhingama* (C. 135-219 A.D.) a Jaina work (Chap. II, *Sūtras* 24,34). The classification is primarily based on the number of senses possessed by the animals concerned.

I. Those having the senses of touch and taste. These are of following types.

- (i) *Apādika*—Vermes without lateral appendages, (scolecids).
- (ii) *Nūpuraka*—like rings, with pendants (Vermes with unsegmented lateral appendages, annelids).
- (iii) *Gaṇḍūpada*—Knotty-legged arthropoda (including Crustacea, Myriapoda, etc).
- (iv) *Kaṭoravarṇa*—Certain types of Mollusca, e.g. *Śaṃkha* (conch), *Śukti* (pearl-oyster) and *Śambuka* (helix).
- (v) *Jalukā*—leeches, annelids.

II. Those having the senses of touch, taste and smell. These include :

- (i) *Pipīlikā*—ants (formicidae, Hymenoptera, Insecta).
- (ii) *Rohiṇka*—red ants (" " ").
- (iii) *Upacika*, *Kunthu*, *Tuburaka*—bugs and flees (Hemiptera and Siphonaptera, Hemimetabola, Insecta).
- (iv) *Trapusabija* and *Kapāsāsthika*—Cucumber and cotton weevils and lice (Aptera, Ameta-bola, Insecta).
- (v) *Śatapadi* and *Utpataka*—Spring-tails (Aptera, Ameta-bola) Centipedes, Chelicerata, Insecta.
- (vi) *Trṇapatra*—plant-lice (Aphids, Homoptera, Insecta)
- (vii) *Kāṣṭha-hāraka*—termites (white ants, Isoptera, Hemimetabola, Insecta).

III. Those having the senses of sight, smell, taste and touch. It comprises :

- I. *Bhramara*, *Varata*, *Sāraṅga*—bees, wasps and hornets (Hymenoptera, Holometabola, Insecta).

- II. *Makṣikā*, *Puttikā*, *Damśa*, *Maśaka*—flies, gnats, gadflies, mosquitoes (Diptera, Holometabola, Insecta).
 - III. *Vṛścika*, *Nandyāvarta*—scorpions, spiders (Arachnida, Arthropoda).
 - IV. *Kīṭa*—butterflies, moths (Lepidoptera, Holometabola, Insecta).
 - V. *Pataṅga*—grass hoppers and locusts (Orthoptera, Hemimetabola, Insecta).
- IV. Those having the five senses of sight, hearing, taste, smell and touch. Besides human beings, this class includes :
- I. *Matsya*-Pisces
 - II. *Uraga*—(Apodal reptiles including snakes (Ophidae).
 - III. *Bhujāṅga*—Oviparous limbed animals (limbed reptiles and Batrachians).
 - IV. *Pakṣī*—Aves
 - V. *Catuṣpada*—Quadrupeds (Tetrapoda).

Of the above four main classes, the first three belong to the invertebrate group, and the fourth one to the Vertebrata. The latter class is sub-divided into *Aṇḍaja*, *jarāyuja*, *potaja*, (placental mammals comprising the Deciduata excepting man, monkey and the carnivora).

CARAK AND ŚUŚRUTA'S CLASSIFICATION :

The classification proposed by *Carak* and *Śuśruta* in their respective Sanskrit works, is based on the habitat and mode of life of the animals. According to *Carak* (320 B.C.) the animals are divided into the following 8 classes :

- I. *Parasaha*—carnivorous land quadrupeds (four legged) and birds which fall upon their prey with force.

- II. *Anupa*—Animals living in marshy or water-logged lands or grazing on river banks.
- III. *Bhusaya* or *Vilesaya*—Animals living in underground holes or burrows (Rodents and Insectivorous).
- IV. *Varisaya* - Aquatic animals living in freshwater or marine water.
- V. *Jalacara*—Animals living both on land and in water (Amphibians).
- VI. *Jangala*—Animals living on dry and elevated hilly or jungle land, such as deer, *etc.*
- VII. *Viṣkīra*—Birds that scatter that food in picking it up, e.g. Crow, Bulbul, Thrush, Pigeon, and other perching birds.
- VIII. *Pratuda* Birds that peck their food with their beaks (wood pecker, *etc.*)

However, *Suśruta* whose work, *Suśruta-Saṁhitā* originated in the last centuries before the Christian era, and appeared during the first centuries A.D. in a well defined form, broadly divides creatures on the basis of their diet and habitat into two major groups. viz. *Anūpa* and *Jāṅgala*. The former is divided into five classes and the latter into eight. Thus *Anūpa* has the following 5 classes :

- I. *Kulecara*—herbivorous quadrupeds frequenting banks of rivers, and ponds, including the elephants, the rhinoceros and the wild buffalo.
- II. *Plava*—floating on water, such as geese, ducks, cranes, *etc.*
- III. *Kośasthas* -living in shells (mollusca), including the large gastropods, the chank (*Śaṁkha*) and the smaller gastropods (*Śaṁkhana*), the mussels, and pearl-oysters (*Śukti* and *Jalaśukti*), the various types of spiral-shelled land gastropods or snails.

- IV. *Pādīnas*—Aquatic animals with long pedal appendages including the tortoise and turtles (*Kūrma*), the crocodile (*Kumbhīra*), the crab (*Karkāṭa*).
- V. *Matsya*—the freshwater and marine fishes including whale (*Timi* and *timingala*).

The *Jāṅgala* group comprises the following classes :

Jāṅghāla—Wild herbivorous animals which are strong-legged living on dry and elevated hilly or jungle land, such as wild ass and deer, *etc.*

Viṣkīra—as above.

Pratuda—as above

Guhāśaya—Carnivorous quadrupeds living in caves and hollows *e.g.* the lion, tiger, wolf, jackal, *etc.*

Prasaha—as above

Parnamṛga—*Putikhas* (a kind of tree-cat emitting a pungent odour) *Madgumusika* and *Vrkasasayika* which are arboreal rodents, *Avakasa* (a kind of cow-tailed monkey).

Vilāsaya—living in holes or burrows, *e.g.* various kinds of rodents, insectivora and reptiles.

Grāmya—Non-carnivorous domestic animals, *e.g.* the horse, mule, ass, camel, goat, sheep, *etc.*

There is some evidence of a more precise classification in the *Suśruta Nāgārjuna*, as in the case of snakes, which are divided into 5 different genera or families, one non-poisonous and four poisonous including one hybrid and three pure families. The venomous (poisonous) serpents of three families are as follows :

- I. *Darvīkaras*—hooded, swift, diurnal, bearing on hoods or bodies marks of chariot-wheels, ploughs, umbrellas,

rhombs or cross-bands, golds, etc. The snakes may be hooded cobras (*Naja tripudians* and *N. bungarus*).

II. *Mandalīns*—(bearing circles or rings on the body—hoodless, thick, slow-moving, nocturnal. These may be vipers (*Viper russelli* and *Ancistrodon himalayans*).

III. *Rajimats*—hoodless, nocturnal, bearing series of dots or coloured markings on the upper parts and sides. These snakes may be identified as Kraits (*Bungarus spp.*)

Serpents of the hybrid (*Vaikaranja*) are stated to be of ten varieties. Twelve varieties of non-poisonous snakes are mentioned. These include the Boidae or Python (*ajagara*), and the arboreal colubrine Dendrophis (*Vrkṣeśaya*).

From the foregoing account of the classification of animals, we find that the ancient Indians possessed a considerable knowledge of systematic classification of fauna (Animal taxonomy) which can be well compared with the taxonomic work of modern zoologists.

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SOME PRĀKRIT WORDS IN SANSKRIT

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Vedic Sanskrit became simplified in course of time and was transformed into classical Sanskrit. Through this process of transformation some vedic words are altogether lost in classical Skt., and some have changed their Vedic meaning and some have come down to classical Skt. as they were. As a result classical Skt. also became very rich with Vedic vocabularies. Though in course of time classical Skt. has incorporated many words from Pkt. or rather Middle Indo-Aryan into their vocabulary, these Pkt. words are fully absorbed in Skt. and hence are regarded as Skt. words. But a closer analysis of some Pkt. words will reveal the fact that some Skt. words are of Pkt. origin, and in course of time, are infiltrated into Skt. and ultimately become Skt. words, In this short paper I shall discuss only a few of them.

I

Let me first take the word *guru* 'heavy' in Skt. According to the Pkt. grammarians, Skt. *guru* becomes *garu-a* in Pkt. (Hc. 1. 107 ; 1. 109). The passage in the sūtra runs as follows :— *gurau svārthe ke sati āderutad vā bhavati || garuo guruo || ka iti kim gurā||* (under 1.109). Grammatically, Hemcandra says that the first *u* of *guru* becomes *a* in Pkt when the pleonastic suffix *ka* is added to it. Pischel (§ 123) thinks that in Pkt. *a* appears in place of first *u* when in a Skt word we have two consecutive *u*'s. This word *guru* occurs in the Ṛg-veda along with the pleonastic suffix *ka* making it *guruka*. In fact, this Vedic *guruka* becomes *garua* in Pkt & Pāli. Turner thinks that it is due to dissimilation that *u* becomes *a*. When the adjectival suffix *īyas* & *iṣṭha* are added to *guru*, it becomes *garīyas* and *gariṣṭha*. This shows

that the form *gar-* is also used in Skt. This word also occurs in Skt *agaru* 'fragrant', Pāli *agalu*, Pkt *agaru*. In NIA the word *guru* is developed in two ways. In some languages the Skt word *guru* is preserved and in some cases the descendants of Pkt are preserved. Apart from Skt (where the word *gar-* as in *gariyas* & *gariṣṭha*), the words *guru* and *garu* occur in Aśokan Inscriptions. For example Aśokan *guru* (Shahbāzgharī, Mansehra, Girnār), *gulu* (Kālsi). In Kālsi the word *galu* 'important' or 'venerable' is also used. In Oria *garu*, Old Mārāṭhi *garuvā*, Mārāṭhi *garuā*, AW *garu*, Hindi *garuā*, Old Gujrāṭi *garuu*, Gujrāṭi *garvū* (grand). In Sinhalese the Skt word *guru* 'heavy' occurs. This shows that the Pkt word *garu* or *garua* has descendants and in fact *guru* is nothing but further Sanskritization from *garu*. Actually the Pkt word *garuā* has a long history. It appears that its origin can be traced from Indo-European. It has some cognates with Greek *báros*, Latin *gravis*, Gothic *kaúrus* and its IE is therefore *guarus*. In fact this IE word is preserved in Skt (cf. *gariyas*, *gariṣṭha*) as well as in Pkt as *garua*. In fact it seems that the Skt word *guru* is nothing but a case of Vowel Harmony, i.e. the final *u* has influenced the first *a* and made it into *u*. In course of time it was forgotten that the original Skt word (as preserved in *gariyas* and *gariṣṭha*) became a Pkt word and today we consider the influence of Pkt in *gariyas* & *gariṣṭha* (cf. Apte *agaru* p. 9 & *gariyas* p. 420 'heavier, weightier, more important, and Monier-Williams p. 348 '*garu* for *guru* in *agaru*'). We may refer here that in the Hindi Lexicon, Nālandā Viśāl Śabda Sāgar edited by Śrī Navalji (p. 310), we get the adjectives *garu* and *garuā* bearing the Hindi meaning *bhārī* (*ojantī*). In the same Lexicon (p. 326) we get the word *garu* with the meaning *vaḍā ākār*, *bhārī*.

II

Another interesting Pkt word used in Skt is *cikhallā* 'mud' in the sense of *kardama*. This word is found in the Skt Lexicon of Monier-Williams (p. 395) and V. S. Apte (p. 434) in the same

sense. In the *Deśināmamālā* of Hemacandra (1088-1172), we get *cikkhallo* (III 11. kardamaḥ, mud) as a Deśi vocable. In the edition of *Rāyaṇavaha* by Basak we also get a word *cikkilla* which is Sanskritised as *kardama*. In the *Ṭikā* cited by Basak we get "*cikkillaḥ kardame deśi*". *Cikkillaḥ* has affinity with the word *cikkhalla*, mentioned by Hc. The Skt *cikhalla* of Monier-Williams might have some sort of connection with *cikkilla* which is referred to the edition of Basak. We have to find out the sources of Pkt *cikkhalla* as well as Skt *cikhalla*. Pischel (§ 206) considers that *cikkhalla* (mud; loam; swamp; Hc. 3.142) is of uncertain origin. It might be etymologically connected with modern Indian *cikila*. Pischel surmises that AMg. *cikhilla* may come from **cikṣālya* from the $\sqrt{kṣal}$ "that which is to be washed off", "that which is to be purified". We know from Pischel that the *Aṇuogadārasutta* (367) offers an etymology of *cikkhallocicca karoti khallam ca bhavati cikkhallam*. A *cikkhili* is an adjective.

Turner in his '*Comparative Dictionary of Indo-Aryan Languages*' (p. 259) refers to *cikhalla* with the meaning of 'mud'. *cikhalla* - m. 'mud, mire', 2. **cakhalla* -. 3. **cikhalla* -. [cf. *ciṅkhala* - 'muddy'. Buddh., *cikila* - m. 'mud' W. *icikila* - m. 'pond, mud'].

1. Pk. *cikhalla* - *ṅkhilla* - m. 'mud'; H. *cihlā* m. 'mud. ooze', *cihlahā*, *cihlāḥ* 'muddy, slimy', *cihel* m. 'wet, oozy land'.
- B. *cahlā* 'soft mud, dirt,' Or. *cahalā* (p. 260).

The word *cikkhalla* originally appears to be a Deśi vocable. It appears in different forms in different dialects of Pkt. In course of time this was adopted as Skt word, and was later incorporated in Sanskrit Lexicon.

III

Another Skt word *draha* meaning 'deep lake' is also a Pkt origin. Monier-Williams (p. 501) and Apte (p. 515) in their respective Sanskrit dictionaries have included the word *draha* meaning 'deep lake' as a Skt. word. The word *draha* has come from *hrada* by metathesis (i. e. interchanges between *d* and *h*. cf. Pischel

११ 268, 332, 354). *Draha* seems to be a hyper-Sanskritization from Pkt & Pāli *daha*. So *draha* presupposes *daha* (an initial *r* in conjunct is dropped and what remains is not doubled). By the time of Hc. there was a confusion with the word *draha*. The point is whether *draha* as was current at the time of Hc. was a Skt or a Pkt word. Hc. perhaps knew that it was a Skt word which came from *hrada* by means of metathesis. But as metathesis is very rare in Skt he considers Skt *draha* as a Pkt. word even violating the Pkt rule that the dissimilar conjunct consonant is not tolerated in Pkt and so in his opinion both *draha* and *daha* are Pkt. That he knew that *draha* is a Skt word, is reflected in his Pkt Grammar (2.80) which is quoted below. “*hradaśabdasya sthitiparivṛtau draha iti rūpam | tatra draho daho | kecid ralopam necchanti | drahaśabdamapi kaścit saṃskṛtaṃ manyate || vodrahāyastu taruṇapuruṣādivācakā nityaṃ refasaṃyuktā deśyā eva | sikkhantu vodrahō | vodrahadrahammī paḍiā ||* (under 2.80).

This *draha* or *daha* has cognates in NIA languages which are given by Turner in his ‘*Comparative Dictionary of the Indo-Aryan Languages*’ (p. 378) :- *draha* - m. ‘deep lake’ lex. 2**dahara*- ‘[Metath. of *hrada*]-’.

1. Pa. Pk. *daha* - m. ‘pond, lake’; N. *daha* ‘natural pond or cistern’; A. *da* ‘deep water’, adj. ‘deep’; B. *da(h)* ‘tank, lake, deep pool, eddy’; Or. *daha* ‘lake, deep water, marsh, mud’, Bhoj. *dah* ‘lake’; H. *dah* m. ‘deep pool’; O. Marw. *daha* ‘very deep water’; Si. *daha* ‘lake, pond’. - Deriv. Or. *dahā* ‘muddy’, *dahala* ‘mud’, *dahalā* ‘muddy’, Mth. *dahāeb* ‘to swim’.

2. L. P. Kgr. *dahar* f. ‘lowlying land’; B. *dahar*, *orā* ‘deep water, lake’, adj. ‘deep’; Or. *daharā*, *ḍāara* ‘deep pool made by eddy in river-bed’; H. *dahrā*, *dahurā* m. ‘hole dug for water’; M. *dahurā* m. ‘water-hole’.

It is a fact worth noting that though Monier-Williams and Apte have accepted the word *draha* in their dictionaries, they have not given any illustration from any Skt literature where the word is used. It is from Hc. only (11th - 12th centuries)

that we come to know that it was regarded as a Skt word, at least, at the time of Hc. who considers it as a Pkt word also.

IV

There is another Pkt word *mora* which is also considered as Skt. The origin of *mora* is obviously from Skt *mayūra*. The process of evolution of *mayūra* is thus :- Skt *mayūra* > Pkt *maūra* > *mora* by euphonic combination of *a* & *ū* (i.e. *a* + *ū* = *o* cf. Pischel § 166). In origin, therefore, the word *mora* is a Pkt word. But this word is also included in Skt dictionary of Monier-Williams as a Skt word. Monier-Williams has also quoted a name *moreśvarabhaṭṭa*, the name of an author of some books. This shows that *moreśwara* was regarded as a Skt word. Hc. in his Pkt Grammar has considered *mora* as a Skt word as well, even though he knows that *mora* is a Pkt word coming from *mayūra*. The passage in question runs as follows :—*mora mauro iti tu moramayūrasabdābhyām siddham* (under 1.171). This *mora* has cognates in NIA languages which are given by Turner (P. 598) as follows : **mora* 'peacock' see *mayūra*, Pa *mōra*—m., *mōriṇī*—f. Aś. *gir. mora*—, Pk. *mōra*—m. *°rī*—f. k. *mor m.*, S. *morum*. L. P. *mōr m.*, Ku, Mth, Bhoj. *mor*, OAW. *mōra m.*, H. *mor m. °rī*, *°rin f.* O Marw. *moraḍi f.*, G.M. *mor m.* Si *mōrā*; —H. (dial) *mhor*, *murhā m.*, Ko. *mhōru*.

3. Aś. *shah. man. majura*—, *kāl. majula*—, *jau. majūla*—, N. *majur*, *majur.*, Or. (Bastar) *mañjura*, OAW *mañjara m.*, Si. *modara*, *monara*.

The reference of Hc., at least, shows that the word *mora* was regarded as a Skt. word during his time. Though we do not know who is the earliest author who has used the word in his literature, we can, at least, take He's reference for granted that *mora* was incorporated into Skt as a Skt word.

These foregoing discussions only tell us how stealthily some Pkt words are accepted in Skt as Skt words. If we ransack some more Pkt words incorporated into Skt, a new avenue will be open to our view in future.

INDIA AND CHINA: OBSERVATIONS ON CULTURAL BORROWING

VICTOR H. MAIR

During the past decade and more, the author has been engaged in an intensive research project on a genre of Chinese popular literature called "transformation texts" (p'ien-wen 變文)¹. All of the extant manuscripts constituting this genre were discovered around the turn of the century in a walled-up cave at Tun-huang 敦煌, Kansu province, northwest China. The manuscripts date to the T'ang period (618-906) and the Five Dynasties period (906-960).

Transformation texts were derived from an oral tradition of picture recitation and were the first prosimetric, vernacular narratives written in Chinese. My research has shown that the origins of this genre may be traced through Central Asia to India.

This long-term research project therefore posits the transfer of a cultural phenomenon (prosimetric picture storytelling) from one country to another. Hence, to a certain degree it subscribes to the theory of cultural diffusion. The purpose of this article is to answer the charges of skeptics who, on nationalistic grounds, deny that transformation texts could possibly have come from abroad because they hold that a society invents all of its own cultural property and that nothing of significance ever really passes its borders.

Anthropologists have long recognized the inevitability of cultural borrowing. As stated by Alfred L. Kroeber,

When something new has been evolved in a culture, whether a tool or an idea or a custom, there is a tendency for it to be passed on to the culture of other societies. This is much like the passing on of culture to the younger generation within the evolving society, except for being foreign-directed instead of domestic. In other words, new culture is transmitted geographically as well as chronologically, in space as well as time, by contagion as well as by repetition. The

spread in area is generally called diffusion, as the internal handing

on through time is called tradition².

If, as we now know was indeed the case, storytelling with pictures was a popular form of religious instruction and entertainment in India from at least two centuries before the beginning of the international era, it would seem impossible that it would not have been exported to China (where this form was unknown before the T'ang period) along with all the other paraphernalia of Buddhism.

There are two major fallacies that used to be perpetuated by many scholars studying China: one is that her culture developed in vacuo, immune to any influence from outside, the other is that all good and new things came from abroad. Neither of these approaches is acceptable because neither of them is true. In studying any civilization, it is imperative that all such biases be set aside. Any view of history which denies the creativity and viability of Chinese civilization is bound to be fraught with distortion. Likewise, any view of history which sees China as hermetically sealed off from the rest of humankind -- as though it existed in isolation from time immemorial -- is a false one.

To deny cultural influence where it is obvious is simply to ignore reality. The yang-pan-hsi “樣板戲” (“model plays”) of the Cultural Revolution had their origins both in Peking opera and in borrowings from Western ballet. To pretend that they were wholly Chinese in origin is to be hopelessly obtuse; to claim that they were made wholly out of foreign cloth is sheer folly. In the same vein, the student of twentieth-century French art needs to be informed about Japanese woodcuts and the historian of twentieth-century American cuisine must not be ignorant of Chinese and Indian culinary arts. My plea is simply that we should face up to the implications of the inescapable fact of cultural borrowing. In the particular area of scholarship which concerns me most, I hope that no student of Chinese literature will remain entirely ignorant of Indian and other neighbouring traditions. We ought not arbitrarily rule out the possibility of Indian influence upon the development of popular Chinese literature. To do so would imperil our efforts to construct an objective and truthful history of Chinese civilization. On the other hand, we should never claim foreign influence unless it can be demonstrated. Mere coincidental

similarity is no test of relatedness.

In this regard, the cautionary note³ of Y.V. Maretin on cultural borrowing, transmission, and crossing must be taken seriously into account. In actuality, there is never really any outright borrowing, of course, since the mere implantation of anything in a new cultural setting is bound to modify it more or less profoundly. It scarcely needs to be pointed out that all borrowing is done upon a pre-existent cultural base. If there is no such base, obviously no borrowing can take place. And, precisely because there is such a base, any borrowing that occurs will inevitably involve a certain amount of adaptation. Hence no cultural artifact is ever accepted in toto and without modification by a recipient society. This is particularly true of literature, where language exercises such an enormous shaping power⁴.

One general observation which may be made regarding literary influence is that forms are far more easily transported across borders than is content. Shakespeare's sonnets are sublimely English even though their form was borrowed from the Italian poet, Petrarch. Similarly, transformation texts may be characteristically Chinese and wayang bĕbĕr is quintessentially Indonesian, even though both have their roots in ancient Indian narrative picture scrolls (those of the mankhas, gauriputrakas, yamapatikas, etc.). The cultural categories "English," "Chinese," and "Indonesian" were enlarged, but not in any sense destroyed, during the process of the absorption of these new literary forms. This perception makes understandable Rabindranath Tagore's remark uttered in 1927 while he was visiting Indonesia: "I see India everywhere, but I do not recognize it."⁵ Hence, though we know that batik was India, we cannot say that, as it is practiced in Indonesia, it is any longer simply an Indian transplantation. The technical terms, the designs, the uses to which it is put -- all are Indonesian.⁶ Exactly the same situation obtains with regard to wayang bĕbĕr (and, for that matter, to transformation texts in China).

The vicissitudes of a cultural product can be prodigiously complicated. The basic tenets of Communism, for example, were established by a German Jew who was living in England, and now "communists" in Russia and in China despise each other. But the complications involved should not deter us from attempting to clarify

the historical development and geographical spread of Communism. In like fashion, the intricate interrelationships among Indian saubhikas, Chinese pien-wen, Indonesian wayang bèbèr, and Japanese etoki, etc. should not force us to throw up our hands in despair. We must patiently attempt to fit as many of the pieces of the puzzle together as possible.

A landmark essay that provides excellent background for the subject of this article is Hu Shih's "The Indianization of China: A Case Study in Cultural Borrowing." It should be required reading, not only for every student of Indian civilization and Chinese civilization, but for all who are interested in cultural history in general. Central to Hu's thesis is that Buddhism was the vehicle of the Indianization which was so pervasive for the past two millennia. One of Hu Shih's most remarkable statements in the essay is germane to our study here:

...The whole Indian imaginative power, which knows neither limitation nor discipline, was indeed too much for the Chinese mind. Indigenous China was always factual and rarely bold in imagination. "Extend your knowledge, but leave out those things about which you are in doubt." "Say you know when you really know, and say you don't know when you really don't know -- that is knowledge." Such were the wise instructions of Confucius on knowledge. This emphasis on veracity and certainty was one of the most marked traits of ancient Chinese literature, which is strikingly free from mythological and supernatural elements. Confucius once said, "I have devoted whole days without food and whole nights without sleep, to thinking. But it was no use. It is better to learn [than to think in abstract]". This self-analysis on the part of one of China's greatest sages is of peculiar significance in showing the suspicion with which Chinese thinkers regarded the unbridled exercise of thought and imagination. It must have been very difficult for Chinese readers to shallow down all that huge amount of sacred literature of sheer fancy and imagination. It was probably this native detestation of

the unbridled imagination which led the first Chinese leaders of anti-Buddhist persecution in the fifth century to declare that the entire Buddhist tradition was a myth and a lie.⁷

It may be objected that, already before the introduction of Buddhism, China had at least an underground current of imaginative thought. This was reflected in various myth fragments and in a few collections of political, philosophical, and historical apoloques. The full extent of this long-neglected and oft-despised minority tradition is only now, with the help of archeology and modern methods of textual analysis, gradually being recovered. Nonetheless, students of Chinese literature who ignore the points which Hu Shih makes here about the orthodox, majority mind-set are liable to have a fatally distorted understanding of the true nature of their subject.

The impingement upon the Chinese mind of such quintessentially Buddhist notions as nirmāṇa ("transformational manifestation"), nirvāṇa ("utter extinction"), māyā ("illusion"), and śūnyatā ("emptiness") surely had a profound effect on the way fiction was written. The effect, in fact, can be measured or judged by various factors, such as the ability to sustain narratives of greater length, an increased propensity for fantasy, and the abandonment by the writer of any pretense that he is reporting events which actually occurred. All of these modifications -- not to mention other more linguistic, formal, and genre changes -- took place after the introduction of Buddhism.

Many aspects of Chinese culture were profoundly influenced by India.⁸ It is impossible, for example, to overlook the enormous impact of Buddhism upon Chinese art and architecture: the pagoda, sculpture, landscape painting, figure painting, etc. were all affected by this Indian religion.⁹ Even in art theory, the resemblance between Vātsyāyana's (third or fourth century B.C.) Ṣaḍaṅga ("Six Limbs") and Hsieh Ho's (Southern Ch'i [479-501]) liu-fa "Six Canons" 謝赫六法 are too great to be ignored.¹⁰ And no study of Neo-Confucianism is adequate unless it takes into account the impact of Buddhist philosophy upon it. The educational establishments that helped to sustain neo-Confucianism were also inspired by Buddhism. According to Liang Ch'i-ch'ao, "...the academies which flourished since the Tang [T'ang] dynasty

cannot be other than Buddhist in origin."¹¹ In the area of science and technology, one needs only to read through the pages of Joseph Needham's Science and Civilisation in China to appreciate the vast amount of exchange between China and India that went on throughout history. One interesting proof of this exchange is a Tun-huang manuscript (S6107) which lists 30-odd names of medicinal plants with their Sanskrit names in transcription.¹² Even certain common diversions, upon investigation, are revealed to have non-Chinese origins. The Ming writer, Hsieh Chao-chih, has this to say in his Miscellanea in Five Parts: "The people in the south like puppetry and the people in the north like swinging, yet both are Serindian amusements."¹³ And Wolfram Eberhard lists some of the sports -- such as soccer, wrestling, polo, and horse-racing -- borrowed by the Chinese from Central Asian peoples.¹⁴

I should like now to turn to the subject of drama as a case study of the mechanics of cultural borrowing.¹⁵ There seems -- from earliest times -- always to have been a close connection between Buddhism and drama.¹⁶ The famous Jogīmāra cave of Rāmgarh was perhaps used as a theater hall during the fourth and third centuries before the international era.¹⁷ Asvaghōṣa, the author of the beloved Buddhacarita-Kāvyaśūtra 佛所行讚經 also wrote a Buddhist drama called Śāriputraprekarana which Luders unearthed in Sinkiang.¹⁸ Asvaghosa's patron was Kaniska, the Indo-Scythian ruler of Gandhara who was the greatest cakravartin ("royal patron of Buddhism") after Aśoka.

But there has also been, in China, a more general linkage between religious establishments and drama that is not necessarily solely Buddhist inspired. Justus Doolittle, writing in 1865, perceived that the theater in China was intimately connected with religion:

...Playacting is exceedingly often an act of worship, and is generally employed on important festive celebrations. Theatrical exhibitions are very commonly connected with rendering thanks to the gods for favors believed to have been received from them by the Chinese. Hence the use of temples for the purpose, where the acting is done in the presence of the idols.

The reputed birthdays of the gods are almost invariably celebrated by the performances of plays before their images. Actors are also often employed to perform in a temple in consequence of a vow on the part of the employer. On the occurrence of the marriage of a son, or the birthday of the aged head of a rich family, or on the occasion of successful competition for literary honor at the regular examinations, a company of actors is frequently employed to perform a play, if the expense can be afforded. Festive and joyous occasions are most commonly celebrated by theatrical exhibitions.¹⁹

John Shryock has posed a number of questions regarding this linkage :

An interesting question which I have never seen discussed is the relation of the theater to religion in China. Four temples in Anking.... have stages over the entrance, facing the main hall across the courtyard. Plays were formerly given there at the New Year and the birthday of the god, but the custom seems to have died out or been forbidden by the officials because of the disorder it created. These plays were not religious, though gods sometimes appeared among the dramatic personae. I do not believe that there are any extant plays with a religious purpose. The ordinary explanation is that the plays were given in honor of the god, that he might enjoy them as any spectator would, and be amused, but this is superficial, of course. How did these plays come to be connected with religion, not only in the temples, but in the trade and provincial guilds ? Why do some temples have them and others not ? Why is a theatrical performance part of the harvest festival in the country, and why are prayers offered before the play ? such questions will probably await a closer study

of the T'ang, Sung, and Yuen Dynasties, when so many new ideas were introduced into China.²⁰

Some of the answers to Shryock's questions may be found by further examination of the symbiotic relation between entertainment and evangelism in the T'ang and Five dynasties periods extensively documented in my publications.

The first to declare that Chinese drama had received direct influence from India was Hsü Ti-shan, who in 1927 published in the Hsiao-shuo yueh-pao (The Short Story Magazine) 小說月報 (no. 17 [special issue 13 entitled Chung kuo wen-hsueh yen-chiu [Studies of Chinese Literature] 中國文學研究 ed, Cheng Chen-to 鄭振鐸 pp. 379-414) an article entitled "Fan-ch ü

t'i-li chi ch'i tsai han-chü shang te tien-tien ti-ti [The Conventions of Sanskrit Drama and Their Pervasive Evidence in Chinese Drama] 梵劇體例及其在漢劇上底點點滴滴 Hsü's evidence was primarily

based on the striking similarities with regard to conventions and characters between southern forms of Chinese drama and Sanskrit plays. The correctness of Hsü's declaration of Indian influence was impressively confirmed by the discovery of a Sanskrit manuscript with lines from Kālidāsa's Śakuntalā and other Sanskrit plays in the Country's Purity Monastery on Mt. T'ien-t'ai 天台山國清寺 by Hu Hsien-su 胡先驕.²¹ The location of the discovery is extremely significant, for this internationally famous Buddhist mountain is not far from Wen-chou 溫州.

Not only was Wen-chou an important port of call for Indian trading ships, having been designated during the Northern Sung (960-1126) as an official port for the collection of maritime customs (shih-po-ssu 市舶司), it is also generally acknowledged to be at the very center of the area in which southern drama (nan-hsi 南戲) developed.

Chu Wei-chih is of the opinion that southern drama did indeed develop along the southeast coast of China and that it doubtless did receive Indian influence in its formative stages.²² Since there was such flourishing intercourse between China and India across the oceans, it is likely that cultural exchange was unavoidable. But Chu goes on to say that drama is a complicated form of art and, therefore,

that the reasons for its occurrence and growth cannot be explained by Indian influence alone. It could not have been imported entire but must have had some base within China upon which Indian influence could build. Surely all but the most fanatic cultural diffusionist would concede Chu's point.

The major formative influences for the development of southern drama came from India by the sea-route. This was a separate importation and one of a quite different character from that which came to China via Central Asia. The latter must, of necessity, have come by stages : it literally travelled from oasis to oasis and this resulted in a much more attenuated Indian impact. For each stage of the journey entailed the modification or adaptation of the Indian forms, either to suit local audiences or because individuals from the various localities themselves actually became performers. At the very least, many different languages were involved in the Central Asian transmission of literary forms to China.²³ The importation of Indian drama to the southeast coast of China was done more, as it were, "at one fell swoop." Regardless of how long those who were carrying the Indian dramatic forms might be at sea, they had very little contact with people on shore. Thus it is not at all surprising that lines from the Sanskrit text of the Śakuntalā by India's greatest dramatist, Kālidāsa, were found in a temple at the epicenter of the area where southern drama was born. Indian drama was imported far more as an integral art form to southern China than it was to northwestern China. In the northwest, it filtered and trickled in with folk performers who followed the caravans. In the south it was brought, more or less intact, by learned scholars who were capable of reading and writing the classical Indian language as well as by merchant patrons who supported them. Consonant with the results of my own studies is Cheng Chen-to's conviction²⁴ that northern drama during the Yüan (1200-1368) probably developed under the influence of the puppet and shadow theaters while southern drama, which preceded it, was inspired directly by Indian theater. During the Ming (1368-1644), these two traditions fused in the characteristic dramatic forms of that period.

An art form as complex and varied as Chinese drama could not possibly have been imported from abroad and deposited without any change in China it is obvious

that, at the very least, one of the Chinese languages must be employed to present intelligently a literary work in China to a sizable audience. This in itself is already a substantial modification of any foreign literary influence which finds its way to China. But it is equally wrong to assume or assert that China was impervious to all foreign literary influence. For the evidence of widespread literary influence from abroad is overwhelming; drama was no exception.

According to Liang Ch'i-ch'ao, Indian influence upon Chinese language and literature can be broken down into five main headings:

1. The increase of the Chinese vocabulary by more than 35,000 items.
2. Modifications of grammar and literary form (e.g. the Zen adoption of colloquial Chinese as a written medium) that were revolutionary in scope.
3. The development of a new zest for pure (i.e. imaginative and fictional) literature.
4. The introduction of musical drama.
5. The creation of a phonetic spelling system.

Hu Shih refers to three great contributions :

1. The decision of the great translators of the Buddhist sutras to use colloquial styles of Chinese in their work.
2. The liberation of the Chinese imagination (leading to the development of the chaptered novel) brought about by exposure to Buddhist literature, which is supremely fecund in this respect.
3. The prosimetric form.²⁵

It seems to me that it would be impossible to deny altogether the literary and linguistic influences to which Liang Ch'i-ch'ao and Hu Shih have alluded, though one may wish to minimize their importance. Even basic theories of literary criticism were profoundly affected by Buddhist metaphysics.²⁶ In spite of Lu K'an-ju's violent denunciation²⁷ of Hu Shih for having suggested that India, and Indian Buddhism in particular, may have had some significant influence on the development of Chinese

literature, the simple and inescapable fact remains that they did. Positive Indian influence can be identified from at least the fourth century B.I.E. in the "Heavenly Questioning" 天問.²⁸

In discussing the impact of written Indian literature on other Asian countries, we must not lose sight of the fact that it was, for the most part, either overtly religious in nature or transmitted by individuals who had religious inclinations.²⁹ Thus the bearers of Indian culture abroad, even its secular aspects, presented it to others in the context of a religious world-view. As Prabhat Mukherji writes,

The Hindu [i.e., Indian Buddhist] monks did not merely carry Sanskrit books across the mountains and deserts, but they carried a culture to China; they not only translated the Sanskrit works into the Chinese language but grafted Hindu culture in the Chinese stem.³⁰

Those who are interested in the rise of written vernacular Chinese ought to scrutinize carefully the works of Kumārajīva and other great translators from Sanskrit, for it is in their works that we see unmistakably a massive reworking of the written language.³¹ Indeed, in two most significant articles³² on historical linguistics, E. Zürcher has shown forcefully that vernacular elements were already being used in the earliest known (i.e. Eastern Han [25-220]) Buddhist translations. What is even more suggestive is Zürcher's conclusion that these new and distinctive features of written Chinese were due to the social and ideological milieu in which these scriptures were produced.³³ The largest part of the new, written idiom was created by drawing on what Zürcher calls the "Late Han vernacular, metropolitan [Lo-yang] dialect." But part derives from syntactic and grammatical distortion caused by the Sanskrit or Prakrit original, such as the awkward rendering of the vocative ("and so Śāriputra, all dharmas..." 如是舍利弗 一切諸法 ...) and the probable use of Ku 改 to render the casual ablative in certain circumstances.³⁴

Chou I-liang, too, has demonstrated³⁵ the direct influence of the Sanskrit language on Chinese grammar in the use of the particle yu 於 between a transitive verb and its object. This usage began to appear frequently in the Chinese language from the Six Dynasties³⁶ on and is quite common in Tun-huang texts.

Samuel Cheung, in a creative paper entitled "Perfective Particles in the Bian-wen [i.e. pien-wen] Language," has suggested that the development of sentence-final indicators of the perfective aspect in Chinese was a result of accommodation to Sanskrit grammatical strictures:

Buddhism reached one of its most sophisticated stages of development in the Tang [T'ang] Dynasty. Massive translations of Sanskrit canons were made by earnest devotees, who often aimed at capturing the spirit of the texts by following the original style as closely as possible. In so doing, they introduced into Chinese an unprecedented style of prose-verse combination, many new words in transliteration, and, perhaps, some grammatical patterns.

It is suggested here that under the influence of Sanskrit, a sentence-final liao, yi, or qi [ch'i] was used to mark a perfective aspect. In Sanskrit, the perfective form for a gerundialverb is marked by the suffix tvā. As the language is verb-final in its word order, the perfective suffix invariably appears at the end of a gerundial sentence. In rendering such a case into Chinese, translators, consciously or unconsciously, placed a particle at the end of the sentence for the same purpose. Although this practice might seem foreign to the Chinese language, it must have enjoyed great popularity among Buddhist scholars in the late T'ang. Not only translations but also discussions on religious topics record such a usage. The bian-wen [pien-wen], a genre originally fostered in a religious environment, also abound with cases of this nature.

Furthermore, it is interesting to note that in almost all the examples in the bian-wen [pien-wen], the perfective marker is limited to a subordinate clause, which relates the temporal setting to the main clause representing the event in focus. In view of the fact that the Sanskrit suffix tvā is used to mark the adverbial use of a gerundial verb, the similarity in function lends great support to the hypothesis of a relationship between the two forms.³⁷

That Chinese languages are susceptible to the influence of foreign grammatical structures should come as no surprise to those who have studied their development during the course of the twentieth century. For example, the frequent use of te 的 as a marker for relative clauses is imitative of European languages, as is the now obligatory inclusion of shih as a copula in sentences with a substantive predicate. Historians of Chinese languages must, therefore, follow the lead provided by Buddhologists and carry out a systematic investigation of the influence of Sanskritic (and other Indo-European languages such as Tocharian, Khotanese, etc.) syntax and grammar on the development of the written vernacular.³⁸

In phonology, until the Ch'ing period (1644-1911), nearly every major development starting with the invention of the "cut and splice" (fan-ch'ieh 反切) system of spelling³⁹ around the beginning of the sixth century was either invented by Buddhist monks or inspired by their work.⁴⁰ It is natural that their interest in psalmody would stimulate them to pay a great deal of attention to this aspect of language. Buddhists outside of India have always been much exercised by the problem of how to approximate in other languages the sacred and powerful sounds of Sanskrit. A Buddhist monk at the end of the T'ang named Shou-wen 守溫 even devised an "alphabet" of 36 letters 三十六字母. Though Sung phonologists adopted its principles in their analyses, it is unfortunate that full-scale alphabetization of Chinese languages failed to materialize.

Music, too, was profoundly affected by influences from beyond the borders of the Central Kingdom. Several modes which later became a part of the Chinese musical system were imported from India and Indianized Central Asia during the T'ang period.⁴¹ Such well-known instruments as the "balloon guitar" (pi-pa 琵琶), the hand-harp (kung-hou 箜篌), and the "two-stringed Serindian fiddle" (erh-hu 二胡), as their bisyllabic names alone should indicate, were not native inventions.⁴²

The whole question of the origins of "lyric verse" (tzu 詞) needs to be re-examined carefully in terms of the massive influx of foreign music during the T'ang dynasty.⁴³ There can be no doubt that Buddhist imported tunes were a

significant factor in the rise of tzu. To name only a few of the Buddhist cantos which were later adopted as lyric meters, there were "The Brahman" ^z 婆羅門 "The Hymn of Siddham" ^{aa} 悉曇頌, "Śāriputra" ^{aa} 舍利弗, "The Buddha" 浮圖子 and "Vaiśravaṇa" ^{aa} 毘沙門子. During the T'ang period, "Let Us Return [i.e. Take Refuge]" ^{ee} 歸去來 was an explicitly Buddhist canto but, by the Sung, it had been adapted (e.g. by Liu Yung ^{ff} 柳永) as a secular lyric meter.⁴⁴

Hsüan-tsung's ^{gg} 玄宗 (r. 712-756) famed "Rainbow-Skirt and Feather-Blouse Canto" ^{hh} 霓裳羽衣曲 was actually an adaptation of "Brahman's Canto" ⁱⁱ 婆羅門曲. The probable Indian origins of the tune were still known in the Sung period even though the name had long since been changed. In the ninety-ninth section of his Dream Brook Essays, Shen Kua (1030-1094) says that "Now on the lintel of the Tower of Leisure in P'u⁴⁵ there is some horizontal writing [in contrast to Chinese vertical writing] in a Devanāgarī-like script by a person of the T'ang. It is reported that it is the score for the 'Rainbow-Skirt!'"⁴⁶ But since no one in Shen Kua's day was capable of reading it, people were not sure just what it was. This is but one of the numerous examples which could be cited that illustrate how rapidly the Indian and Central Asian origins of many important elements of Chinese culture could be utterly obscured. There are even occasions where Chinese authorities, by governmental fiat, required the wholesale renaming of foreign tunes with Chinese-sounding titles. Given this sort of atmosphere and mentality, it is not at all surprising that the alien-sounding name pien-wen would seem somehow mysteriously to disappear at the beginning of the Sung dynasty. The actuality, of course, is not that pien-wen disappeared in the Sung but that it was so thoroughly and effectively absorbed and Sinicized. As I have demonstrated elsewhere, orally performed expository tales (ping-hua ^{jj} 平話 or, more precisely, the oral antecedents of written ping-hua) were not really so different from orally performed pien (i.e., the oral antecedents of pien-wen), except that they had a different name and favored different stories.⁴⁷

Hsü Chia-jui has made a brief but compelling statement of the crucial significance which the music of "the Western Regions"⁴⁸ holds for the development of Chinese literature. He argues, for example, that strum lyrics (tan-tzu ^{kk} 彈詞) were

not created by Chinese musicians but were imitative of translated Indian literature. Hsü then proceeds to explain how this could have happened and how to deal with it by mentioning four general points for consideration:

A. Chinese literature was never free of foreign influence, particularly that of the Western Regions.

B. Chinese literature was never free of the influence of music.

C. The compilation of literary history ought to focus on music, thereby establishing a musical literary history.⁴⁹

D. The ten divisions of T'ang music were formerly looked down upon as foreign music. Yet among them, the Kuchean produced the later cantos and the Indian produced the later strum lyrics. Their relationship to Chinese literature is thus exceedingly great. There are still the eight other sections which no one has studied, I believe that, among them, there are certainly quite a few secret gems. Therefore, I advocate that later, in compiling literary history, we should first compile the history of music. And, in compiling the history of music, we should first compile the cultural history of the Western Regions.⁵⁰

Hsü's points are very well taken. No adequate history of Chinese literature can be written which ignores the profound impact of foreign culture upon it. Some progress has already been made in the direction advocated by Hsü. A large part of the system of Chinese music (including many individual tunes and the majority of instruments) from the T'ang period on has been demonstrated to have a foreign origin. This has been conclusively proven by such eminent authorities as Kishibe Shigeo, Tanabe Hisao, Hayashi Kenzō, Curt Sachs, and Laurence Picken. And Edward Schafer has studied the means by which foreign music was adopted at court:

But of all the specialists of ambiguous social status who were sent to China by a foreign government, the most popular and influential were the musicians - instrumentalists, singers, and dancers - and the instruments and musical modes they brought with them..... For many centuries the music of the West had its admirers in China, but under the

Sui emperors there was a great vogue for it, which continued into T'ang times. As Western nations were brought under Chinese control, their music was "captured", as it were, and subsequently was demanded as "tribute" from them. Foreign orchestras were incorporated into the mass of court employees and were required to perform for courtiers and vassals in "informal" palace entertainments. "Formal" ceremonies, in contrast, required traditional tunes, played on ancient Chinese instruments, especially bells, stone chimes, and zithers.⁵¹

The massive influence of Indian and Central Asian culture upon the life of the T'ang dynasty capital has been carefully documented by Hsiang Ta in his long essay entitled "Chang-an during the T'ang Period and the Civilization of the Western Regions (T'ang-tai Ch'ang-an yü Hsi-yü wen-ming)." The fourth section, "The Serindianization of Ch'ang-an around the Time of the Incipient Origin Reign Period (713-741) (K'ai-yüan ch'ien-hou Ch'ang-an chih hu-hua 開元前後長安之胡化)," and the fifth section, "Schools of Art and Dances to Music Transmitted from the Western Regions (Hsi-yü ch'uan-lai chin hua-p'ai yü yüeh-wu 西域傳來之畫派與樂舞)," are especially helpful in understanding the nature and magnitude of this cultural impress.

The fact that Indian influence in China reached a peak in the seventh and eighth centuries may bear importantly on the question of why transformations (pien) seem to have come into being at about the same time. As C.P. Fitzgerald puts it, India during the T'ang "was probably better known to the Chinese.... than it has been at any subsequent period until modern times. Ch'ang An [the Chinese capital] was in regular diplomatic contact with the more important states of Northern India, and even interfered in Indian politics on more than one occasion."⁵² Confronted with the mass of evidence of foreign (especially Indo-Buddhist) influence on virtually all aspects of culture during the T'ang, we should not arbitrarily reject a partially foreign origin for transformation texts (pien-wen) if the evidence available points overwhelmingly in that direction.

Notes

1. For background and bibliography on this subject, see Victor H. Mair, Tun-huang Popular Narratives (Cambridge: Cambridge University Press, 1983); T'ang Transformation Texts: A Study of the Buddhist Contribution to the Rise of Vernacular Fiction and Drama in China, Harvard-Yenching Monograph Series, 28 (Cambridge, Massachusetts: Harvard University Council on East Asian Studies, 1989); Painting and Performance: Chinese Picture Recitation and Its Indian Genesis (Honolulu: University of Hawaii Press, 1988); "Lay Students and the making of Written Vernacular Narrative: An inventory of Tun-huang manuscripts," Chinoperl Papers, 10 (1981), 5-96; "The Narrative Revolution in Chinese Literature: Ontological Presuppositions," Chinese Literature. Essays, Articles, Reviews, 5.1 (July, 1983), 1-27; and "A Partial Bibliography for the Study of Indian influence on Chinese Popular Literature," Sino-Platonic Papers, (March, 1987) [iv + 214 pages].
2. Anthropology: Race, Language, Culture, Psychology, Prehistory (New York: Harcourt, Brace, 1923; rev. ed. 1948), p. 411.
3. "Indian Influences on Bali Culture", in The Countries and Peoples of the East: Selected Articles (Moscow: Nauka Publishing House, 1974), pp. 266-285. Originally appeared in Countries and Peoples of the East, issued by the Oriental Commission of the Geographical Society of the U.S.S.R., Vol. 5 (India -- The Country and People) (Moscow, 1967), pp. 129-148.
4. But even language itself (as we shall see later in this article) is shaped by cultural contact: witness the enormous number of Japanese loanwords in modern Chinese and the enormous number of English loanwords in modern Japanese. It need not be emphasized that loanwords themselves (as well as other types of lexical borrowings) are changed radically by their absorption into a new linguistic setting.
5. Quoted by Claire Holt, Art in Indonesia: Continuities and Change (Ithaca: Cornell University Press, 1967), p. 63.
6. B. Schrieke, "Eenige opmerkingen over ontleening in de cultuur-ontwikkeling," Djawa, 7.2 (1927), 94-95 [of 89-96].
7. In Independence, Convergence, and Borrowing in Institutions, Thought, and Art. Harvard Tercentenary Publications (Cambridge, Massachusetts: Harvard University

Press, 1937), pp. 229-230 [of 219-247].

8. See Hsiang Ta's ^{rr}向達 general remarks in "Tun-huang Fo-chiao i-shu chih yüan-yüan chi ch'i tsai Chung-kuo i-shu shih shang chih ti-wei [The Origins of Tun-huang Buddhist Art and Its Position in the History of Chinese Art] ^{oo}敦煌佛教藝術之淵源及其在中國藝術史上之地位." Appendix (pp. 121-123) to Shui T'ien-ming ^{oo}水天明 "Fu-an Ying-lun, p'u-p'u ta-mo -- t'an Hsiang Ta chiao-shou tui 'Tun-huang hsüeh' te kung-hsien [Head Bowed over His Desk at the British Museum, Plodding through the Great Desert: a discussion of Professor Hsiang Ta's Contributions to Tunhuangology] ^{oo}伏安英倫, 伏安大漢 -- 談向達教授對敦煌學的貢獻 Tun-huang-hsüeh chi-k'an [Journal of Tunhuangology] ^{rr}敦煌學輯刊, 2 (1980-81 [?]), 117-123.

Ch'ang Jen-hsia ^{ss}常任俠 has discussed Indian cultural influence in the arts under the headings of music, dance, sculpture, and painting. See his article entitled "Chung Yin wen-hua te chiao-liu [Cultural Exchange between China and India] ^{oo}中印文化的交流", Chung-kuo ku-tien i-shu [Chinese Classical Arts] ^{uu}中國古典藝術, 6 (Shanghai: Shanghai ch'u-p'an kung-ssu, 1954), 120-144.

9. For an overview of this subject, see René Grousset, The Civilizations of the East: China, tr. from the French by Catherine Alison Philips (New York: A.A. Knopf, 1935; originally published in Paris in 1930), chapter 2, "Buddhist influence in China", pp. 147-278. Cf. Frits Staal's remark ("What is Happening in Classical Indology? -- A Review Article", Journal of Asian Studies, 41.2 (February, 1982), 276 [of 269-291] that "The Indianization of Asia is wider and deeper than is generally acknowledged".

10. See Percy Brown, Indian Painting (Calcutta: Y.M.C.A. Publishing House, 1953), pp. 21-23 and William Acker, tr. and annot., Some T'ang and pre-T'ang Texts on Chinese Painting, vol. 1 (Leiden: E.J. Brill, 1954), vol. II, parts 1 and 2 (Leiden: E.J. Brill, 1974), pp. xlviii-xlv [of vol. I]. The Śaṅgā actually occur in Yaśodhara's thirteenth-century commentary to Vātsyāyana's Kāmasūtra, but he is surely quoting much older sources.

11. China's Debt to Buddhist India (New York: The Maha Bodhi Society of

America, 1927 [?], p. 13.

12. Cf. also P2337, P2665v, and P2703. A concrete example of the influence of Buddhism upon pharmacology in China is the Yao-ming p'u [A List of Names of Medicines] ^{vv}藥名譜 by Hou Ning-chi ^{uu}侯寧極, revised for publication by T'ao Ku ^{xx}陶穀 (902-970), in Ch'en Lien-t'ang ^{yy}陳蓮士唐 (Ch'ing period), ed., T'ang-tai ts'ung-shu [T'ang Dynasty Collectanea] ^{zz}唐代叢書 (Shanghai: Chin-chang t'u-shu-chü, 1921 [?] lithograph), ts'e 7, chih 76. T'ao Ku's introduction shows that this list of medicines is of Buddhist origin. The majority of the 190 types mentioned are derived from plants. Many of the drugs listed have fanciful names which even the editors found difficult to identify. In this article, I focus primarily on literature (especially fiction and drama) and only touch upon language, music, religion, philosophy, medicine, and painting. For a more comprehensive view of early Sino-Indian cultural relations, the reader may consult such general works as the following: Prabodh Chandra Bagchi, India and China: A Thousand Years of Cultural Relations (Bombay: Hind Kitabs, 1950, second rev. and enl'd. ed.; first published 1944); H.G. Quaritch Wales, The Indianization of China and of South-East Asia (London: Bernard Quaritch, 1967); and Suniti Kumar Chatterji, "India and China: Ancient Contacts -- What India Received from China," Journal of the Asiatic Society [Calcutta], I. 1 (1959), 89-122.

13. Hsieh Chao-chih ^{a'}謝肇淛 ^{b'}五雜俎 (Advanced Scholar 1602), Wu tsa-tsu [Miscellanea in Five Parts] (Peking: Chung-hua shu-chü, 1959), ch. 5, p. 147. For a rich fund of information on the foreign origin of much of Chinese popular entertainment, see James T. Araki, The Ballad-Drama of Medieval Japan (Berkeley and Los Angeles: University of California Press, 1964; Rutland, Vermont and Tokyo: Charles E. Tuttle, 1978). The word translated as "Serindian" (^{a'}胡) might more accurately (though clumsily) be rendered as "Turco-indo-iranian".

14. "Sport bei den Völkern Zentralasiens, nach chinesischen Quellen," in his China und seine westlichen Nachbarn: Beiträge zur mittelalterlichen und neueren Geschichte Zentralasiens (Darmstadt: Wissenschaftliche Buchgesellschaft, 1978), pp. 128-142.

15. See also Mair, "The Contribution of Transformation Texts to Later Chinese

Popular Literature" (forthcoming).

16. For an early reference to dramatic representations in Buddhism, see Jacob S. Speyer, ed., Avadānacataka, Bibliotheca Buddhica, 3 (St. Petersburg: Commissionnaires de l'Académie Impériale des Sciences, 1906-1909; reprinted 's-Gravenhage: Mouton, 1958 and Osnabrück: Biblio Verlag, 1970), vol. 2, section 75, pp. 29-30, esp. p. 29, l. 11 where there is mentioned Bauddham nāṭakam ("Buddhist dance/drama/pantomime").

17. See A. Berriedale Keith, The Sanskrit Drama in its Origin, Development, Theory and Practice (Oxford: Clarendon Press, 1924), pp. 80-85 and cf. Étienne Lamotte, tr., Le Traité de la Grande Vertu de Sagesse de nāgārjuna (Mahāprajñāpāramitāśāstra) avec une étude sur la Vacuité, vols. 2 and 4, Bibliothèque du Muséon, 18 and Publications de l'Institut Orientaliste de Louvain, 2 and 12 (Louvain: Bureaux du Muséon, 1944 and Université de Louvain, Institut Orientaliste, 1976), vol. 2, pp. 621-649.

18. Heinrich Lüders, ed., Bruchstücke Buddhistischer Dramen, Königlich Preussische Turfan-Expeditionen, 1, Kleinere Sanskrit-Texte (Berlin: Georg Reimer, 1911), p. 41 and note 6 on that page. 19. Social Life of the Chinese (New York: Harper and Brothers, 1865; reprinted Taipei: Ch'eng Wen, 1966), vol. 2, p. 298 (italics in original).

19. Social life of the Chinese (New York: Harper and Brothers, 1865; reprinted Taipei: Ch'eng Wen, 1966), vol. 2 p. 298 (italics in original).

20. The Temples of Anking and Their Cults: A Study of Modern Chinese Religion (Paris: Librairie Orientaliste Paul Guenther, 1931), p. 32.

21. Mentioned in Cheng Chen-to 鄭振鐸, Ch'a-t'u pen Chung-Kuo wen-hsueh shih [Illustrated History of Chinese Literature] 插圖本中國文學史, 4 vols., continuous pagination (Peking: Tso-chia ch'u-pan-she, 1957; originally 1932), p. 568. Cf. also the two articles by Lois Finot and Sten Konow entitled "Kālidāsa in China," Indian Historical Quarterly, 9.4 (December, 1933), 829-834 and 10.3 (September, 1934), 566-570.

22. Chu Wei-chih 朱維之, "Sha-kung-ta-la yü Sung Yüan nan-hsi (Sinkoontala and Southern Drama of the Sung and Yuan Periods)" 沙恭達拉

與宋元南戲, Fu-chou hsieh-ho ta-hsüeh hsüeh-shu (The Foochow Union University Studies) 福州協和大學學術, 3 (1935), offprint. For Indian influence on the development of Chinese drama, see also Lu Ch'ien 盧前, "Chung-kuo hsi-ch'ü so shou Yin-tu wen-hsüeh chi Fo-chiao chih ying-hsiang [The influence of Indian Literature and Buddhism upon Chinese Drama]" 中國戲曲所受印度文學及佛教之影響 in his Chung-kuo hsi-chü kai-lun [Outline of Chinese Theater] 中國戲劇概論 (Shanghai: Shih-chieh shu-chü, 1934), pp. 6-9. Wan Chün 萬鈞 "Fo-chiao yü Chung-kuo wen-hsüeh [Buddhism and Chinese Literature]" 佛教與中國文學, in Fo-chiao yü Chung-kuo wen-hsüeh [Buddhism and Chinese Literature] 佛教與中國文學 Hsien-tai Fo-chiao hsüeh-shu ts'ung-k'an [Modern Studies of Buddhism] 現代佛教學術叢刊, 19 (Series 2, no. 9) (Taipei: Ta-ch'eng wen-hua ch'u-pan-she, 1978), p. 3 [of 1-6] says flatly that Chinese drama comes from India (as stated, this is an extreme formulation of a complex issue) and refers to studies by Hsü Ti-shan 許世山, Lin, P'ei-chih 林忝志, and Li Man-kuei 李滿桂 which document this (see the bibliography by Mair cited in note 1 for references). In a conversation of May 5, 1982 and in a letter of June 8, 1982, Elling Eide has told me of his growing conviction that several Chinese theatrical terms may be traceable to the vocabulary or conventions of ancient Indian drama. He suggests that mo-ni (male lead), ching (the villain), and even the word chiao-se (role) itself might all be best explained as make-up terms deriving from some regional observation of conventions such as those found in works like Bharata-muni's *Nāṭyaśāstra*. See the translation by Monmohan Ghosh (Calcutta: Royal Asiatic Society of Bengal, 1951, rev. second ed.), vol. 1, ch. 23, 4.72-83, 89-108 where "painting the limbs" (*aṅgaracana*) is discussed. Construed in this light, the mo-ni (read 抹泥) would be "the one who puts on the paste or mixed colors," the ching (also called t'ieh-ching 貼淨) would be "the one who applies the pure or primary colors," and chiao-se 腳色, the word for "role," would be, quite literally, "the color of the limbs." As for the tan or "female lead," Eide accepts the identification with mu-tan (木笮, T'ang *muktân*- or *muktât*) or mo-ta (莫革旦, T'ang *mwâk-tât*), attested in T'ang sources, and suggests that this might derive from a Sanskrit or Prakrit word for "the inqénue

[mugdhā]. She, for example, George Hass, tr., The Dasarupaka (New York : Columbia University Press, 1912), 2.2b:

The inexperienced [kind of wife] (mugdhā) has the desire of new youth,
is coy in love and gentle in anger.

mugdhā navavayaḥkāmā ratau vāmā mṛduḥ krudhi

An alternative etymology would be mukta which means "dissolute woman" an interpretation of tan 旦 advanced by several Chinese commentators. Eide further suggests that the Tocharians (the "Kuchians"), who apparently had a rich dramatic literature, may have been the intermediaries for the transmission to China of some terms and conventions that were Indian in origin, but he notes that his evidence for this is presently limited to the fact that the Tocharians and the Chinese seem to have **preceded** the Indians in the convention of regularly indicating a tune, mode, or raga title before the sung verse passages in their dramas.

She also Eide's "Foreign Influences on the Chinese Performing Arts: A Selection of Thoughts and Festerings," appendix to his "Li Po's 'Up into the Clouds Music'," presented to the members of Chinoperl at the thirty-fifth annual meeting of the Association for Asian Studies, March 25-27, 1983, San Francisco.

23. Li Ch'iang 黎 蓓 (李 弼). "Shih-lun fan-chū, hui-ho chū yū Chung-kuo hsi-ch'ü [Tentative Discussion of the Relationship between Sanskrit Drama, Uighur Drama, and Chinese Plays]" 言式論梵劇，回鶻劇與中國戲曲. Paper presented at the August, 1985 Conference on Tun-huang and Turfan Studies held in Urumchi, Sinkiang. This is a careful analysis of the resemblances between Sanskrit and Chinese drama, together with a look at old Uighur drama. Li pays particular attention to actual historical contacts. There was, of course, also a long tradition of performing arts in the north, going back through various T'ang theatricals, song-and-dance routines imported from the Western Regions during the Six Dynasties, Han entertainments (many also from abroad), and even earlier indigenous thaumaturgical performances. Yet none of these, obviously, constitutes drama in the full sense of the word. This is a subject I explore in great detail in my article entitled "The Contributions of T'ang and Five Dynasties Transformation Texts (pien-wen) to Later

Chinese Popular Literature" which is soon to appear in Sino-Platonic Papers.

24. Ch'a-t'u pen Chung-kuo wen-hsüeh shih, pp. 567ff. and 633.

25. The views of Liang and Hu are summarized by Mi Wen-k'ai^{ad} 糜文開 ,
Yin-tu wen-hsüeh hsin-shang [An Appreciation of Indian Literature] 印度文學欣賞
San-min wen-k'u [Three People's Library] 三民文庫^{cc'} , 17 (Taipei: San-min
 shu-chü, 1967); pp. 8-9. Also see Hu Shih^{ad'} 胡適 , Pai-hua wen-hsüeh shih [A History
 of Chinese Vernacular Literature] 白話文學史^{cc'} , vol. 1 (Shanghai:
 Commercial Press, 1934, second ed., first ed. 1928), pp. 169-170.

26. See for example, Jao Tsung-i^{cc'} 饒宗頤 , "Liu-Hsieh wen-i ssu-hsiang yü
 Fo-chiao [The Literary Thought of Liu Hsieh and Buddhism]" 劉勰文藝思想
 與佛教 , in Fo-chiao yü Chung-kuo wen-hsüeh (see note 22), pp. 33-39.

There is great need for a history of Buddhist influence on Chinese literary criticism
 from Liu Hsieh^{cc'} 劉勰 (c. 465-c. 522), who used the word prajñā^{ad'} 般若
 ("transcendent wisdom") in reference to literary inspiration, to Yen Yü^{ad'} 嚴羽 (twelfth
 century), who was deeply influenced by Zen thinking, to Wang Kuo-wei^{cc'} 王國維
 (1877-1927), one of whose basic concepts was ching-chieh^{cc'} 境界 , i.e. viśaya,
artha, gocara ("sphere, realm, mental projection").

27. Lu K'an-ju^{cc'} 陸侃如 , "P'i-p'an Hu Shih te Pai-hua wen-hsüeh
shih [Criticism of Hu Shih's History of Vernacular Literature]" 批判胡適的
 白話文學史 , Wen-hsüeh i-ch'an [Literary Heritage] 文學遺產 ,
 Section of the Kuang-ming jih-pao (Kuang-ming Daily) 光明日報^{cc'} , 54
 (May 15, 1955).

28. Chi Hsien-lin, "Indian Literature in China," Chinese Literature, 4 (July-August,
 1958), 123-130.

29. See Probhat K. Mukherji, Indian Literature in China and the Far East (Calcutta
 Greater India Society, 1931), p.i.

30. Ibid., p. 203.

31. This has actually already been done to very good advantage by I. S. Gurevich
 in Ocherk Grammatiki Kitaiskogo Yaz'ika tretogo-pyatogo vv. (Moscow: Nauka, 1974).

Tsu-lin Mei, in his study of the origin of the disjunctive question in modern Chinese,

has stressed the importance of Buddhist materials; see his "Hsien-tai Han-yü hsiian-tse wen-chü fa te lai-yüan (The Origin of the Disjunctive Question in Modern Chinese)"

現代漢語選擇問句法的來源, Chung-yang yen-chiu-yüan li-shih yü-yen yen-chiu-so chi-k'an (Bulletin of the Institute of History and Philology, Academia Sinica) 中央研究院歷史語言研究所集刊 49.1 (1978), 17n5 [of 15-36]"

32. "Late Han Vernacular Elements in the Earliest Buddhist Translations," Journal of the Chinese Language Teachers Association, 12.3 (October, 1977), 177-203 and "Buddhist Influence on Early Taoism," T'oung Pao, 66.1-3 (1980), 84-147.

33. "Late Han Vernacular," p. 177.

34. Zürcher, "Late Han Vernacular," pp. 195n3 and 199n45.

35. Chou I-liang 周一良, "Chung-kuo te fan-wen yen-chiu [Sanskrit Studies in China]" 中國的梵文研究, in his Wei Chin Nan-pei-ch'ao shih lun-chi [Collection of Essays on the History of the Wei, the Chin, and the Northern and Southern Dynasties] 魏晉南北朝史論集 (Peking: Chung-hua shu-chü, 1963), pp. 314-322 [of 323-338]; originally appeared in Ssu-hsiang yü shih-tai yüeh-k'an [Thought and Time Monthly] 思想與時代月刊, 35. Chou had also discussed this usage in "Lun fo-tien fan-i wen-hsüeh [On the Translated Literature of the Buddhist Canon]" 論佛典翻譯文學, in Fo-chiao yü Chung-kuo wen-hsüeh (see note 22), pp. 314-322 [of pp. 335-344]. For other remarks of a general nature on the subject of linguistic influence, see the introduction to my Tun-huang Popular Narratives.

36. Zürcher, "Late Han Vernacular," p. 190, noticed this usage already in the earliest Buddhist translations. Cf. Thomas Watters' remarks of nearly a century ago in chapter eight of his Essays on the Chinese Language (Shanghai: Presbyterian Mission Press, 1889) which deals with the representation of Sanskrit cases by Chinese particles.

37. "Perfective Particles in the bian-wen Language," Journal of Chinese Linguistics, 5 (1977), 66 [of 55-74].

38. This extends even to such features as demonstrative pronouns. Che 這 (cf. tsia 遮), for example, was not used as a demonstrative until early in the

T'ang period. It is found frequently in Tun-huang texts and in the works of such Buddhist poets as "Cold Mountain" ^{yy}寒山 Cf. Ch'en Chin-wen ^{zz}陳治文, "Chin-chin chin-shin-tz'u 'che' te lai-yuan [The Origins of the proximate Demonstrative ^{aa}che]" ^{aa}近指指示詞「這」的來源 Chung-kuo Yu-wen [Chinese Philology] ^{bb}中國語文 6 (cumulative 133) (December 22, 1964), 442-444. One wonders whether it is only a coincidence that the demonstrative pronominal adjective in Khotanese is sa. See R.E. Emmerick, ed. and tr., *The Khotanese Surangamasamadhisutra* (London and New York: Oxford University Press, 1970), glossary, p. 130. Much important work remains to be done in order to make clear the full impact of Sanskrit and Prakrit on the development of Han languages.

39. On the Indo-Buddhist origins of the fan-ch'ieh system of spelling, see Konishi Jinichi ^{cc}小西甚一, "Shisei oyobi hansetsu kō [An Examination of the Four Tones and the fan-ch'ieh System of Spelling]" ^{dd}四聲および反切考 in his Bunkyo hifuron kō [An Examination of the Discussions from the Secret Storehouse of the Mirror of Literature] ^{ee}文鏡秘府論考 Kyoto and Tokyo: Ōyashima shuppan kabushiki kaisha and Dai Nippon yūben-kai kōdansha, 1948-1953), vol. 1, chap. 3, pp. 143-554; Lung Hsiao-yun ^{ff}龍笑雲, "Fan-ch'ieh ch'i-Yüan k'ao-lüeh [A Summary Investigation of the Origins of the fan-ch'ieh System of Spelling]" ^{gg}反切起源考略, Hsüeh-feng [Trends in Scholarship] ^{hh}學風, 2.8 (September, 1932), 26-29; Hsieh Wu-liang ⁱⁱ謝無量, "Fo-chiao tung lai tui Chung-kuo wen-hsüeh chin ying-hsiang [The influence of Buddhism's Eastward Movement on Chinese Literature]" ^{jj}佛教東來對中文學之影響, section one, "Fan-yin ju Chung-kuo i ch'eng Shen Yüeh ssu-sheng chi p'ien-wen lu-shihchih fa-chan [The Entrance of Sanskrit phonology into China Leading to Shen yüeh's (441-513) Four Tones and the Development of Parallel Prose and Regulated Verse]" ^{kk}梵音入中國以後沈約四聲及駢文律詩之發展, in Fo-chiao yü Chung-kuo wen-hsüeh (see note 22), pp. 15-20 [of 15-36]. and many other articles listed in Paul Fu-mien Yang, comp., Chinese Linguistics: A Selected and Classified Bibliography (Hong Kong: The Chinese University of Hong Kong, 1974) pp. 77-78, entries 1179-1198. Tsu-Lin Mei and I are preparing for publication a joint article on the origins of "Regulated Verse" (^{ll}律詩)

or "Recent Style" (chin-t'i-shin ^{nn'}近體言) prosody which will conclusively demonstrate its Indian origins.

40. Lo Ch'ang-p'ei, "Indian influence on the Study of Chinese Phonology", Sino-Indian Studies, 1.3 (April, 1945), 115-126; A von rosthorn, "Indischer Einfluss in der Lautlehre Chinas", Sitzungsberichte, Akademie der Wissenschaften in Wien, 219.4 (1942); Chao Yin-t'ang ^{nd'}趙蔭棠, Teng-yün yuan-liu [The Sources and History of Rhyme-Group Classification] ^{oo'}等韻源流 (Shanghai: Commercial Press, 1957). See also Yu Lungyu [Yü Lung-yü] ^{nn'}郁龍余, "Ts'ung Shen Kua te Meng-hsi pi-t'an K'an Chung-Yin ku-tien wen-hua chiao-liu (Sen-kuo's 'Meng-Xi-Bi-Tan,' Study of Cultural Exchange between India and China)" ^{99'}從沈括的《夢溪筆談》看中印古代文化交流, Nanya Yanjiu (South Asian Studies) ^{nn'}南亞研究 2 (1981), 103-104 [of 102-106]. Yu discusses other aspects of Indian influence as well (astronomy, music, dance, etc) and provides a useful bibliography of Chinese studies on Indian civilization.

41. Paul Pelliot, review of Hobogirin, second fasc., T'oung Pao, 28 (1931), 95-104.

42. See the studies by Hayashi Kenzo, Tanabe Hisao, Curt Sachs, and Lawrence picken (Mair, "Bibliography" [note 1 above]).

43. For an overview of the pervasive influence of foreign music during the T'ang which contributed to the growth of tz'u, see Hsü Chia-jui ^{ss'}徐嘉瑞, Chin-ku wen-hsueh kai-lun [Outline of Literature since the Middle Ages] ^{cc'}近古文學概論 (Shanghai: pei-hsin shu-chu, 1947), pp. 73-118. Two recent studies of the early history of the tz'u within China are by Keng-i Chang Sun, The Evolution of Chinese Tz'u Poetry: From Late T'ang to Northern Sung (Princeton: Princeton University Press, 1980) and Marsha Wagner, The Lotus Boat: The Origins of Chinese Tz'u Poetry in T'ang Popular Culture (New York: Columbia University Press, 1984). The first mentions T'ang emperor Hsüan-tsung's active encouragement of the introduction of Serindian music into the court. The second focuses on the popularization of songs by singing girls and their adaptation by literati poets. These are commendable histories of the early tz'u, we are still in great need of a pre-history of the tz'u. For an offer of extensive research materials relating to proto-tz'u, see Mair, "Bibliography," p. ii.

44. See Wen Ju-hsien ^{u'}聞汝賢, Tz'u-p'ai hui-shih [Glossary of Lyric Titles with Explanations] ^{u'}詞牌彙釋 (Taipei: by the author, 1963), pp. 739-740 and Wu Ou-t'ing ^{u'}吳藕汀 Tz'u-ming so-yin [Index of Lyric Names] ^{xx''}詞名索引 (Peking: Chung-hua shu-chü, 1958), p. 182.
45. ^{yy''}蒲中 . I have been unable to locate this place with any degree of definiteness.
46. Shen Ku: ^{zz''}沈括 (1030-1094), Merig-hsi pi-t'an chiao-cheng [Collated Dream Brook Essays] ^{aaa}夢溪筆談校證, issued 1086-1091, ed. Hu Tao-ching ^{bbb}胡道靜 (Shanghai: Shanghai ch'u-pan kung-ssu, 1956), p. 235.
47. See the "Introduction" to my Painting and Performance.
48. Hsi-yu ^{ccc}西域, a vague designation for Central Asia and adjacent areas to the west and south.
49. A very good start at such a history is Chu Ch'ien-chih's ^{ddd}朱謙之 Chung-kuo yin-yeh wen-hsueh shih [A History of Chinese Literature Set to Music] ^{eee}中國音樂文學史 (Shanghai: Commercial Press, 1935).
50. Chin-ku wen-hsueh kai-lun, pp. 119-122.
51. The Golden Peaches of Samarkand: A Study of T'ang Exotics (Berkeley: University of California Press, 1963), pp. 50-51.
52. China: A Short Cultural History (London: The Cresset Press, 1958), p. 326.

Tetragraphs (fang-k'uai-tzu 方塊字) for
"India and China : Observations on Cultural Borrowing"

by

Victor H. Mair

- a. 變文
- b. 敦煌
- c. 撮板戲
- d. 謝赫六法
- e. 佛所行讚經
- f. 小說月報
- g. 中國文學研究
- h. 鄭振鐸
- i. 梵劇體例及其在漢劇上底點點滴滴
- j. 天台山國清寺
- k. 胡先驕
- l. 温州
- m. 市舶司
- n. 南戲
- o. 天問
- p. 如是舍利弗一切諸法

Mair Tetragraphs for "India and China" ina "

q. 故

r. 於

s. 反切

t. 守溫

u. 三十六字母

v. 琵琶

w. 箏候

x. 二胡

y. 詞

z. 婆羅門

aa. 悉曇頌

bb. 舍利弗

cc. 浮圖子

dd. 毗沙子

ee. 歸去來

ff. 柳永

gg. 玄宗

hh. 霓裳羽衣曲

Mair Tetragraphs for "India and China"

- ii. 婆羅門曲
- jj. 平話
- kk. 彈詞
- ll. 開元前後長安之胡化
- mm. 西域傳來之畫派與樂舞
- nn. 何達
- oo. 敦煌佛教藝術之淵源及其在中國藝術史上之地位
- pp. 水天明
- qq. 伏安英倫，什什大漠——談何達教授對‘敦煌學’的貢獻
- rr. 敦煌學輯刊
- ss. 常任俠
- tt. 中印文化的交流
- uu. 中國古典藝術
- vv. 樂名譜
- ww. 侯寧極
- xx. 陶穀
- yy. 陳蓮塘
- zz. 唐代叢書

- a'. 謝肇淛
- b'. 五雜俎
- c'. 胡
- d'. 鄭振鐸
- e'. 插圖本中國文學史
- f'. 朱維之
- g'. 沙恭達拉與宋元南戲
- h'. 福州協和大學學術
- i'. 盧前
- j'. 中國戲曲所受印度文學及佛教之影響
- k'. 中國戲劇概論
- l'. 萬鈞
- m'. 佛教與中國文學
- n'. 佛教與中國文學
- o'. 現代佛教學術叢刊
- p'. 許地山
- q'. 林培志
- r'. 李滿桂

Mair Tetragraphs for "India and China"

s'. 抹泥

t'. 貼淨

u'. 脚色

v'. 木簞

w'. 莫韃

x'. 旦

y'. 黎蓄(李強)

z'. 試論梵劇, 回鶻劇與中國戲曲

aa'. 糜文開

bb'. 印度文學欣賞

cc'. 三民文庫

dd'. 胡適

ee'. 白話文學史

ff'. 饒宗頤

gg'. 劉勰文藝思想與佛教

hh'. 劉勰 hhh. 般若

ii'. 嚴羽

jj'. 王國維

Mair Tetragraphs for "India and China"

- kk'. 境界
 ll'. 陸侃如
 mm'. 批判胡適的白話文學史
 nn'. 文學遺產
 oo'. 光明日報
 pp'. 現代漢語選擇問句法的來源
 qq'. 中央研究院歷史語言研究所集刊
 rr'. 周一良
 ss'. 中國的梵文研究
 tt'. 魏晉南北朝史論集
 uu'. 思想與時代月刊
 vv'. 論佛典翻譯文學
 ww'. 這
 xx'. 遮
 yy'. 寒山
 zz'. 陳治文
 aa''. 近指指示詞「這」的來源
 bb''. 中國語文

Mair Tetragraphs for "India and China"

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|-------|---------------------|-------|---------|
| cc''. | 小西甚一 | | |
| dd''. | 四聲および反切考 | | |
| ee''. | 文鏡秘府論考 | | |
| ff''. | 龍笑雲 | | |
| gg''. | 反切起原考略 | | |
| hh''. | 學風 | | |
| ii''. | 謝無量 | | |
| jj''. | 佛教東來對中國文學之影響 | | |
| kk''. | 梵音入中國以成沈約四聲及駢文律詩之發展 | | |
| ll''. | 律詩 | uu''. | 聞汝賢 |
| mm''. | 近體詩 | vv''. | 詞牌彙釋 |
| nn''. | 趙蔭棠 | ww''. | 吳藕汀 |
| oo''. | 等韻源流 | xx''. | 詞名索引 |
| pp''. | 郁龍余 | yy''. | 蒲中 |
| qq''. | 從沈括的《夢溪筆談》看中印古代文化交流 | zz''. | 沈括 |
| | | aaa. | 夢溪筆談校證 |
| rr''. | 南亞研究 | bbb. | 胡道靜 |
| ss''. | 徐嘉瑞 | ccc. | 西域 |
| tt''. | 近古文學概論 | ddd. | 朱謙之 |
| | | eee. | 中國音樂文學史 |

NAMTHAR LITERATURE IN TIBET AND INDIA

TOBDAN

Namthar¹ is a typical form of writing found in Tibetan literature. It ordinarily means biography of a religious personage. As such it records the journey of his life in this world beginning from birth till his attaining liberation from the mortal life.

The works are based on the occasional narratives given by the subject-lama himself and, perhaps, include information gathered from several other sources. Therefore sometimes major part of such a work is found related in the first person.

Most common subjects of a Namthar are the subject's date of birth, place of birth, parentage, education, names of various teachers and places where the teachings were received, types of teachings received, visit to important religious places, meetings with important persons like rulers and religious leaders, teachings imparted and works composed, date and place of death, etc.

The works are almost always executed by one of the immediate disciples of the teacher himself. Besides the author, another important person involved in the execution of the work is 'the initiator' (bskul-mkhan), who also is from among the lama's disciples. It is often found in two different sizes, viz. rgyas-pa (expanded edition) and sdus-ma (abridged) or sometimes termed as rbring-po (medium).

Since the works contain description of full life of the teacher, these invariably appear after his death. In fact, such a work exe-

1. Namthar (rNam-thar) is the contracted form of *rnam-par thar-pa*, which literally means complete emancipation.

cuted as a memorial to the master, like the *chaitya*-s and images which are raised after one's death.

Namthars form an important source material of the history of Tibet, and are also greatly useful to the historians of India. Biographies of a number of Indian saints and scholars are found in Tibetan, both in original and in translation. Moreover, the biographies of many Tibetan saints contain descriptions of places in India which they visited. Guiseppe Tucci, an eminent European scholar of Tibetology had demonstrated the usefulness of this kind of literature in the reconstruction of Indian history long before, by presenting a translation of important extracts from a few selected Namthars.²

We do not know when and how exactly this kind of work originated in Tibet. Speaking about the origin of 'Khrungs-rabs' (Histories of Incarnations)—works similar to Namthars—A.I. Vostrikov remarks that, "A prototype of such works may, of course, be found in the Buddhist Jatakas—the legends on the feats of Buddha in his previous incarnations."³ From this we can easily deduce that translation from the Indian literature inspired the development of Namthar literature.

Acharya Atisha's (d. 1054) Namthar written by Brom-ston (1011-1064) is the first work of this kind known to us.⁴ Prior to this, there is dearth in the availability of not only Namthars but of all kinds of literature generally in Tibet, due to several reasons, which are well known to the historians. However, we find a number of Namthars belonging to Atisha's period like those of Nāropāda (d. 1039), Rinchen Zangpo (958-1059), Marpa Lotsāba

2. Guiseppe Tucci, *Travels of Tibetan Pilgrims in the Swat Valley*, Calcutta, 1940.

3. A. I. Vostrikov, *Tibetan Historical Literature*, Calcutta, 1970 (Translation H. C. Gupta).

4. Nag-tsho Lo-tsa-ba tshul-khrims rGyal-ba, *Jo-bo rje dPal-ldan Mar-me mdzad Ye-shes kyi rNam-shar rGyas-pa*.

(1012-1097), Mila-Raspa (1040-1123), etc. Thereafter it is available continuously.

Many great lamas are supposed to be reincarnations of life after life as some of them are supposed to have lived a number of lives. For example Rinchen Zangpo is believed to have had nineteen births. If Namthars of all the lives of a few important lamas were available, they could have been of immense value.

Like Lamaism, this tradition is also followed by the Bonpos, the adherents of pre-Buddhist religion of Tibet. The Zhang-Zhung Nyan-rgyud⁵ is a collection of more than a score of such biographies, besides many other similar works existing here and there. They are short and stereotyped and generally lack distinctiveness and originality. Subject of description is limited to religious aspect only and very little information is available about the subject lama.

It is possible that these works are based on some ancient models, but they themselves cannot be older than the works cited above like the Atisha's Namthar. One major reason for this is that the accompanying work, i.e. the works collected in the volume containing the above biographies, deal with the decline of Bon. This period must correspond to the later ascendancy of Buddhism i.e. tenth century and afterwards. Secondly, they appear to have much resemblance in style of writing and the nature of contents to an Indian work—the biographies of eighty-four siddhas⁶ which belongs to later than tenth century. It was written by Abbhaya-datta and translated into Tibetan by *gelong* Mondub Sherab.

Dates of both composition and translation of this work is not yet known. The work could not have been completed before

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5. *rdZogs-pa chen po Zhang-zhung sNyan-rgyud kyi brgyud-pa'i bla-ma'i rnam-thar.*
 6. *dGe-slong sMon-grub Shes-rab, 'Phags-yul Grub-chen-pa rgyad-chu rTsa-bzhi'i rNam-par thar-pa rnams.*

the appearance of all the eighty-four siddhas. Regarding the period of these siddhas, N.N. Upadhyaya⁷ says on the authority of Benoytosh Bhattacharya and Rahul Sankrityayan that the number eighty-four must have been completed by twelfth century A.D. Their period is known to extend from A.D. 633 to 1200. As such the above work must have been completed only by the end of twelfth century or early thirteenth century. However, possibly a good part of it must have been based on earlier works.

As Lamaism spread towards India in the west, in the areas bordering Tibet, like Spiti, Ladak, Zaskar, Kinnaur and Lahul, this form of writing also developed there. One major reason favouring such a situation was that the centre of development of both Bon religion and Buddhism (latter spread) was in Zhang-zhung (Guge) in Western Tibet. Rinchen Zangpo even worked actively in Spiti, Kinnaur and Ladak and he established a number of monasteries in these areas, including the famous Tabo monastery. Several of his incarnations have appeared in these areas and Kye monastery in Spiti and Kanam in Kinnaur were their seats. His Namthar⁸ therefore had been a constant source of inspiration. Moreover Western Tibet had been the gateway for the pilgrims from Tibet visiting Kashmir, Jalandhara (Kangra in Himachal Pradesh), and Uddiyana or Ugyan (Swat valley in Pakistan), birth-place of Guru Padmasambhava. These pilgrims had, in turn, to pass in variably through Spiti, Kinnaur etc. Lama pilgrims were treated with respect in these areas. Namthars of a few such pilgrims such as rGod-tshangpa (1189-1259)⁹, Ugyan Ras-pa (1223-1303), etc., are available and they have faithfully recorded their experiences and observations while journeying through these areas.

7. N. N. Upadhyaya, *Tantrik Bandh Sadhna Aur Sahitya*, Kashi, 1958.

8. Ku-gé Khyi-rang-pa Jang-na-shri, *Byang-chub Sems-dpa' Lo-tsha-ba Rin-chen bzang-po'i 'Khrungs-rab dKa-spyad sgron-ma rnam-thar Shel-phreng pu-gu rgyud*.

9. rGyal-ba rGod-tshang-pa'i rNam-thar.

Siddha sTag-tshang Ras-pa, original name Ngagdbang rGya-mtsho, (16th century), came from Tibet on pilgrimage to India like other pilgrims, but he decided to settle in Ladak after completion of his itinerary. There he patronised the famous Hemis monastery. His namthar¹⁰ is the first work of this kind known to us to have been composed in this part of India. Initiation to this work was given by sTan-pa Dar-gyas, one of the attendants or disciples (gro-pa) of the teacher and some other disciples and was completed under the patronship of king of Ladak Seng-ge rNam-rgyal (1590-1635) and queen sKal-bzang sGrol-ma. Namthars of two more prominent lamas, Sherab Zangpo and De-ba Gya-mtsho, are believed to exist, but so far they have not come to light. Sherab Zangpo went to Tibet where he became an ardent follower of the reformed sect (Gelugpa) and on his return he converted many existing monasteries in Spiti, Ladak and Zanskar into the new order.¹¹ He perhaps belonged to Ladak. Deba Gyatsho stayed in Zanskar and is supposed to have established the Shashur monastery in Lahul.

In Zanskar Namthars of four lamas are available who lived in succession. They are gNag-dbang Tshering¹² (1657-1740), bZhad-pa rDorje¹³, who was disciple and author of biography of Ngag-dbang Tshering,¹³ Lama Karma, and lastly Kun-dga' Chhos-legs.¹⁴ The last one was teacher of the famous European scholar Csoma de Koros who lived in Zanskar for some years between 1820 and 1830.

In Spiti we find only one Namthar, i.e. the Namthar of Guru Rang Rig Ras-pa. It is believed that the collection of his works including the Namthar runs into about seven sections. So far

10. Ngag-dbang kun-dga', *Oad-yana-pa Ngag-dbang sGya-mtsho'i rNam-thar*.

11. bZhad-pa rDor-rje, *dPal-ldan bla-ma Dam-pa 'Khrul-zhig Rin-po-che Ngag-dbang Tshering gi rNam-thar Kun-tu bZang-po'i dzos-gar yid kyi bchud len*.

12. mKhas-grub chen-po dPal-bzhad-pa rDor-rje'i rNam-thar.

13. bLa-ma Karma'i rNam-thar.

14. Kun-dga' Chhos-legs kyi rNam-thar.

only two of them have been found, the second (kha) and fourth (nga) sections. This undoubtedly indicates the existence of at least four sections, ka, kha, ga, and nga, if not more. This fact is further corroborated from the following statement contained in one of the sections of the work itself : "as many works (collections of sayings and teachings) of the *Guru* as exist there, those whose prints have been prepared are the volume 'kha' and the small one which follows here" i.e. nga section. The main reason why other parts of the works are not available appears to be that no prints were prepared for them.

Fortunately this 'nga' section of the biography contains a brief account of the *Guru* which was written by his immediate disciple Lung Ngag-dbang rDo-rje. The work is of a rare kind and is typical example of Namthar. It is short, straightforward and devoid of lengthy and superfluous material found usually in such kind of literature. It is very much like a modern composition. Therefore, text and translation of the biography have been given here for the benefit of the inquisitive readers.

According to the Namthar, Rang Rig Raspa was born at Manjushri monastery in village Rang Rig in Spiti. It is important to note that Rinchen Zangpo is stated to have erected a monastery here, as we learn from his biography. His mother Tshering Dolma was a religious minded woman and father Shakya Tshering was a lama.

He was born in the 'sheep' year and died in 'water hog' year. These data are inadequate to determine the length of his life, and dates of his birth and death.

The biography of the teacher reveals that he was contemporary to king lDe-ldan rNam-rgyal of Ladak whose regnal period is between c. A.D. 1640-1675. There are several other persons named in the biography but they are themselves unknown to us. Even the king of Zanskar whose name is mentioned in the biography, does not find place in the two genealogical lists of kings

of Zanskar. Thus taking cue from the above we get the year of his death as A.D. 1683. Now taking into account the full cycle of 60 years and the available years of the additional 12-year cycle, the age works out to 64 years and his date of birth to 1619. It would not be unreasonably long, even if we add another cycle of 12 years to the age of the teacher, thereby making 76 years and extending the date of birth back to 1607.

He belongs to Dugpa Kargyudpa sect. He was widely travelled in India, Tibet, Nepal and Bhutan, in the days when he had to go on foot all the way depending on alms only. Here follows the teacher's Namthar.

TRANSLATION

HERE BEGINS THE WISHGRANTING TREE LIKE PRAYER FOR COMPLETE EMANCIPATION OF REVEREND RANG RIG RAS-PA

Salutation to Guru Ati-Jñānāya ! Bowing down at his feet, I go to the refuge of the glorious and excellent teacher Rang Rig Raspa, the embodiment of kindness of all the Jinas. Favour me with kindness, the most affectionate one.

Lord Rang Rig (Raspa), the excellent leader of the siddhas spread the knowledge of sGrub (meditation), rGyud (tantra) and bsTanpa (the religion of Buddha), in all the directions here in the country of Himavat, in the manner of saint. With the magic of kindness of the great teacher, in the time of Kali, I describe here in brief, for increasing faith, in him, of the others and myself, the performances shown by him in wonderful manner between the time of his appearance in this land and his departure for the others' benefit.

The person's birthplace is Shri-manju in Spiti, in the mNgaris. He was born as a son to lama Shakya Tshering and Tshering

Dolma on the tenth day of...in sheep year. I bow to him. At the age of three years, sitting in the Vajrāsana posture, he explained the religion to the gathering of children. While doing so, it is said, he visualised the embodiments of his earlier and future lives. He who is able to see the three times clearly, I bow to him.

At the age of seven Pad-dkar Phrin-le became his teacher and he became the former's devotee by first offering the crest of his hair, and was initiated as Kun-dga' rGya-mtsho. Thus was he ordained.

Then while serving the professor for some years, he received instructions specially on *dbang* (power), *lung* (precept), *man-ngag* (religious discourse) and *zab-khrid* (mystics). While attempting to meditate in the solitude, clear perception arose in his mind.

At the age of twelve he visited Nagarkotri.¹ For the benefit of self and the others he accomplished there long prayers. From the Phagmo (rDorje Phagmo, Vajravārāhi) he received the power of fire.² Thus the warmth of happiness grew in him there.

At mThe-bong Magur (margul in Lahul), he acquired miraculous powers. The appearance of Eka-jati in physical form fulfilled his objective. At Manju cave (Spiti) he accomplished meditation of Vajrapāṇi. He saw the god in reality and absorbed in himself.

From dPag-bsam Ye-shes, etc., some siddha teachers, he received instructions on *dbang*, *lung*, *man-ngag* and *zab-bshad*. With the power gained from these, he threw away the distraction of his mind and erected the banners of meditation at uncertain solitary places.

While visiting the Jobo (ruler) of Kirong (in Nepal on the border of Tibet) he absorbed in himself the light emanating from

1. Nagarkot, modern Kangra in Himachal Pradesh.

2. At Jawalamukhi, where gas coming out from the earth burns constantly.

the heart of Avalokiteshvara. At Bodhgayā he remembered the Buddha of the Bhadrakalpa.

After having visiting all the places of pilgrimage in India and Nepal, his body was suffering from temperature and illness and his flesh was reduced to skin. Despite this he sat in meditation at bDe-chen sTengs for twelve years.

While paying visit to rJe-bstun sGam-snyong, the latter bestowed on him the epithet of Rang-rig-pa—one who has acquired knowledge himself—and gave complete instructions on *dbang*, *lung* and *man-ngag*. Thus he became the principal disciple.

He stayed at sTag-sor Yang-dag 'Jog for three years. There he received wonderful instructions of *Phy* (out), *Nang* (In) and *gSang* (secret) from the eighth Urgyan-rgyu-phrul which opened for him the hundred gates of sten-brel (Pratityasamutapada).

He visited Grub-dbang-rje and from him he learnt how to reflect on the true and false nature of the new and old form of *dbang* and *lung*, mixed up with one another like the essence of the sun. Teacher and pupil's mind and heart joined there.

At lake gYu-mtsho (Lake Yamdok) at Tsari in (in Tibet), surpassing in two sciences, he completed the meditation and fulfilled two objectives. Fame of the excellent leader of three worlds spread like the lustre of light.

He completed thrice the 'Prophecy' (a work) of rDo-rje bTsunmo. Reaching at sMra-bo Khros, a wonderful prophecy was made when he was fully entrusted with the high duty on the three paths of *Khros* (anger), *Nag* (black) and *Zab* (secret) by Nyang-rig Chhos-dbang-je.

As his own interest was fulfilled, now it was time to work for the benefit of others, for liberation of the innumerable unfortunate and untamed ones. He became a well established and perfectly learned one who was incomparable and unrivalled.

He joined Tibet and Nepal, as if a wonderfully big bridge was constructed. He restored the declining temple of Kha-shor (in Nepal) by offering golden badge, dome, chain, etc. After doing as many good deeds, he witnessed the signs of virtues there. The matchless saint and courageous wandering hero roamed fearlessly through all the places in India, Nepal, Tibet and Uddyan, alone like (the horn of) a rhino.

While pondering over the welfare of the others, he visited alone as if in thought, the six yojana wide great kesar-growing ground in Pushpahari (perhaps Pampur in Kashmir) situated amidst thirty-six lakh villages.

On twenty-seventh day of ninth month of water-hog year, in a miraculous sight at Khri-bstan Vihar, which is like a heavenly castle, the frame of the body amalgamated with the Dharamdhātu in a moment's time.

The devout and persons like me who were seen with merciful eyes by him, obtained the remains (ring-srel) of his heart, tongue and eyes and erected his images and chaityas. Thus the great wave of welfare of others was accomplished.

Your chaitya is worthy of seeing, hearing and remembering, and needs to be protected. All those worshipping, honouring, praying and circumambulating this wishgranting chaitya will be led on the path of liberation to the abode of gods.

Whose meditating image is clad with beautiful white cotton, the precepts declaring 84,000 dharamskandhas, whose mind has unwavering faith in the self-born dharamkāyas, the king of faith of three worlds, I pay obeisance to him.

I pray, that I and the others like me may be able to understand the deeds of this world and every future life, like you. With the help of the four essentials of cooperation for welfare of the others, we may be able to attain liberation, and I may be able to acquire power to lead others to liberation.

This was composed by Lung Ngag-dbang rDo-rje, an ignoble disciple of the lord himself.

May this bring good luck and glory !

ཕྱག་ལོ་མང་དག་འཛིན་ལ་ལོ་གསུམ་དུ།
བཞག་ས་ཚོ་ལྟོན་སྐྱེ་འཕུལ་ལོ་བཟང་པས། ངོ་མཚན་
ཚོས་བསྐྱར་སྤྱི་མང་གསང་གསུམ་གྱིས། རྩེ་འཕེལ་
མོ་བཟང་འཕྲེད་དེར་།

གུང་དབང་རྩེ་དང་མཇུག་ཚོ་གསར་རྒྱུང་གི། དབང་
ལུང་མང་པོ་དུ་རྩེ་གི་ཕུ་མཁུ་བཟང་། ཉི་མའི་
རྒྱུང་པོ་གཅིག་དང་གཅིག་འདྲེས་བཞིན། ཡང་སྐས་
བྱགས་ཡིད་འདྲེས་དེར་།

ཐོན་གཡུ་མཚོན་དཀར་སྐད་ཕུལ་མ་ཕྱིན་
པས། མཁུ་གཏིས་མཐར་ཕྱིན་དོན་གཏིས་ལུན་
བྱས་གྲུབ། རྒྱང་གསལ་ཐེལ་ལོན་ལུ་ཁུལ་ཕྱི་
སྐྱོབ་མོད་གཞིགས། ས་གསུམ་འདྲོན་མོ་མཚོན་
དེར་།

ངོ་རྩེ་བཟོན་མོད་ལུང་བསྐྱར་ལུན་གསུམ་མཐར།
སྐྱོབ་པོ་ཕྱིན་ཉལ་ཉིགས་ཚོས་དབང་རྩེ། ཐེལ་མཁུ་
མཁུ་ལུ་བཟང་བཟང་ཡངས་གཏད་པས། ངོ་མཚན་
ལུང་བསྐྱར་དེར་།

དང་དོན་མཐར་ཐོན་གཞིན་དོན་དུས་བཟང་གི།
གདུལ་བྱ་སྐུ་ལུན་གངས་མོད་སྐྱོན་གྱིས་ལ།
ལོགས་པར་འགྲོད་མོད་ས་མཁུ་ཡང་དག་མཚོན།
མཚོངས་མོད་འཕྲེད་སྐྱེ་གསུམ་དེར་། ལུ་མོད་མཐར་
སྐྱོབ་ངོ་མཚོན་ཐམ་ཚོན་བཟོན། ལ་མོད་ཉེས་
བཟོས་གསར་རྩེ་གདུལ་པོ་འཕྲེད་པོ་གསུམ་།
དག་གི་ངོ་རྩེ་བསྐྱར་མཐར། མཐར་པོ་དེ་དག་མཚོན་
གཞིགས་དེར་། ུ

ཆུ་གར་བལ་པོ་མོད་དང་ལྟོན་ལུལ་ཁམས་
ཀྱང་ཕྱི་གཞིག་ཕུར་བཟོ་ཕྱི་ལྟར། འཛིན་པོ་མོད་
ཆུ་མོད་དཔལ་པོ་རྒྱུང་སྐྱོབ་པོ་མཐར། བཟུལ་གྱི་ཕྱགས་
འཕྲེད་སྐྱེས་དཔེར་དེར་།

གཞན་དོན་དགྲ་མེད་ཆོ་བ་ཕྱུ་མཆོད་མཆོད་མཆོད་།
གུར་ཀྱམ་སྟེ་བཤེ་ཐང་ཆོན་དཔག་ཆོད་དུག། སྤོང་ཁྱེན་
འབྲམ་ཐུག་སྟེ་དུག་ཆོག་སྟེ་དུག་སྟེ། རྩམ་མ་
བཞིན་གཟིག་ཕྱོད་ཕྱོད་དེར་།

ཆུ་ཕག་སྒྲིབ་དུག་པའི་ཁྱེན་བདུན་ཁྱེན་། བྱི་ཐུག་
གུར་ཀྱམ་ཁང་གུ་ཁྱེན་པམ་སྟེ། ངོ་མཆོད་ལྷ་ས་
དང་ལྷན་གཟིག་སྟེ་བཤེ་ཐང་། ཆོན་དུང་སྟེ་
བཟུམ་དེར་།

བདག་སྟེགས་འཕྲུལ་ཐུགས་ཆེད་ཐུན་དཔ་
ཁྱེན་། ཐུགས་ལྷ་གས་ཐུན་གཟུམ་དེང་སྟེ་ལྷ་
སྟེ་ཕག་སྟེ། ངོ་མཆོད་དཔག་ཆོད་དང་ལྷན་ཐུན་བཞག་
ཐམ། བཞན་པམ་སྒྲིབ་ཆོན་གྱི་དེར་།

མཐོང་ཐོས་དེན་དེན་སྟེ་ཐོས་པམ་ཐུག་པ་ཡི། ཁྱོད་
ཁྱེན་གདུང་ཐུན་མཐོང་བ་དེན་ལྷན་ལ། མཆོད་བཟུང་
གཟུམ་འདྲམ་སྟེ་བ་ཁྱོད་པ་ཐུགས་ལྷན། མཐོང་ཐོས་
མཐོང་ལམ་འདྲན་དེར་།

ཐམ་དགྲ་མེད་བཟུང་མཐོང་པའི་ཐུང་དུག་སྟེ།
ཆོན་ཐུང་བཟུང་བྱི་བཤེ་སྟེ་ཐུང་ཐུག་པའི་གཟུང་། དེང་བཞིན་
ཆོན་སྟེ་དང་ལམ་གཟུང་མཐོང་ཐུགས་། བཟུང་གཟུམ་
ཆོན་སྟེ་ཐུང་མཐོང་གཟུང་བ་འདྲམ་།

བདག་སྟེགས་འདྲི་ཐམ་ཆོ་དུམ་ཐམ་མ་མ་
དུ། ཁྱོད་བཤེན་ཆོ་འདྲི་ཐུང་སྟེ་བཟུང་ཐམ་།
བདག་གཞན་མཐོང་ཐུན་གཞན་དེན་བཟུང་དེང་
བཤེན་། འཕྲུལ་ཀྱེན་བདག་ཐམ་འདྲན་ལྷན་མཐོང་
ལྷན་ཐོག། ཐམ་པའི་ཐུང་ཆེད་ཁྱེན་སྟེ་ཐུང་ཐུན་
ཐམ་ལྷན་ལྷན་དེང་དེང་ཐུན་བ་བཟུང་ཐམ་
དགྲ་མེད་པམ་སྟེ་ཐུན་དེན། ॥

REVIEW

SRI AUROBINDO THE POET AND THINKER

By NIRMALYA GHATAK

Publisher : Smt. Kuntala Bhattacharya, 11/1, Benode Behari
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Sri Aurobindo continues to be a controversial and misunderstood figure, perhaps the loneliest of poets and prophets. Both devotees and those that are not have their own difficulties and confused the issues. Few have a matching mind and not many can write well. The result is one of the most outstanding literary and spiritual geniuses remains remote from the reading public. His gift still await evaluation. Opinions, either in favour or against are not evaluation.

Here is a devotional work on twin allied aspects of Sri-Aurobindo as poet and seer. This ought to be a help to those who are approaching Sri-Aurobindo for the first time. Sri-Aurobindo was, as he himself held first and foremost a poet. The earliest works, written in England are more British than Indian. Returning home he returns to Indian themes, mythical romantic, narrative, followed by a short period of intellectual debates and high questionings. Yoga brings in another shift and we have a large number of lyrics or sonnets. The whole thing culminates in 'Savitri', a work yet to be adjudged. In passing the author refers to Sri-Aurobindo's theory of poetry and mentions the fact of levels of inspiration as evolution. He also draws a distinction between the poet and the rishi and since visions can be expressed or embodied in prose he briefly refers to 'Pilgrim of Consciousness', Sri-Aurobindo's thoughts in several prose works, Sri-Aurobindo's balance and cosmic sweep never fail him. As the

Times Literary Supplement reviewer suggested, SriAurobindo writes as if he was standing among the stars. Indeed the author calls SriAurobindo the 'Star of stars' and draws attention to his images and the quality of imagination (which may not be imagination), as in 'Rose of God'. But of course 'Savitri' has more of this overhead strain and on a larger scale. A whole chapter is given to 'Savitri' in which he quotes passages and attempts a little comparison. The attitude is one of unqualified admiration.

This posthumous publication based on reverential study, will appeal to the initiated. But the wider reading public may have difficulties. Admiration is not the same as sensitive analysis. The theory of poetry should have been explained rather than just quoted. The prose works too which show the unity and range of SriAurobindo's thought on subjects other than poetry have been somewhat neglected. And is poetry to be valued because of its 'thought'? Was SriAurobindo really a philosophical poet? After all as Mallarme told Degas, poetry is written not with ideas but with words. SriAurobindo's language and style deserve closer attention. Is the single chapter on 'Savitri' sufficient for its importance? One need not elaborate. Of course any encounter with this oecumenical visionary brings its own reward. The true *Tikakar*, the ideal interpreter is still in limbo.

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